

THE CANADIAN GREAT LAKES BASIN

INTAKE OUTFALL ATLAS

(8 Volume Set)

Volume 3

AUGUST 1990



Ontario

Environment
Environnement

Jim Bradley, Minister/ministre

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CANADIAN GREAT LAKES BASIN

INTAKE - OUTFALL ATLAS

VOLUME 3

LAKE HURON/GEORGIAN BAY

by
Kleinfeldt Consultants Limited

AUGUST 1990

M. Griffiths (ed)

Water Resources Branch
ONTARIO MINISTRY OF THE ENVIRONMENT

1990, Her Majesty the Queen in Right of Ontario

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CANADIAN GREAT LAKES BASIN INTAKE/OUTFALL ATLAS

GUIDE TO USE

INTRODUCTION

The Canadian Great Lakes Basin Intake/Outfall Atlas will be used by various public organizations as well as private concerns for water quality assessment studies, pollution control plans, investigation of bacterial pollution problems at bathing beaches and in the formulation of long range management strategies.

The Canadian Great Lakes Basin, Intake Outfall Atlas is composed of eight separate volumes as listed below:

- Volume 1 - Lake Superior
- Volume 2 - St. Marys River
- Volume 3 - Lake Huron/Georgian Bay
- Volume 4 - St. Clair River/Lake St. Clair/
Detroit River
- Volume 5 - Lake Erie
- Volume 6 - Niagara River/Welland Canal/Welland River
- Volume 7 - Lake Ontario
- Volume 8 - St. Lawrence River

For the purposes of this project, questionnaires were sent to appropriate individuals at public and private intake and outfall facilities. Facilities may fall into any one of the industrial categories, or it can be a municipally or provincially operated Water Treatment Plant (WTP) or a Sewage Treatment Plant (STP). Municipalities were also contacted for information regarding various outfalls such as storm, combined, and sanitary sewers that discharge to the Great Lakes System or tributary stream. The bulk of the data were received by Kleinfeldt between December 1986 and June 1987.

A list of Ontario municipal, provincial and private industrial operations was developed using several sources including: IMIS and UMIS listings, from the Water and Wastewater Management Section, Regional Abatement and Utility Officers, Reports from the International Joint Commission, earlier versions of this Atlas, reports and discussions with various individuals. In order to be included in this Atlas identified operations must either discharge effluent (including cooling water and stormwater) to the Canadian Great Lakes or draw water from the the system. These operations must be located within 2 kilometres of the Great Lakes System shoreline. The Great Lakes System includes all Great Lakes within Canadian boundaries as well as the major Interconnecting Channels.

A report summarizing discharging operations and receiving water bodies has been prepared and submitted, under separate cover, to the Great Lakes Section.

USING THE ATLAS

I General Layout

The Atlas begins with Volume 1 representing Lake Superior and ends with Volume 8, representing the St. Lawrence River, thus following a general west to east flow. Mapping of the Great Lakes shoreline is accomplished by using continuous and overlapping hydrographic charts and topographic maps.

Each map contains a legend of symbols for quick reference, an orientation arrow indicating the north direction and a bar scale. When working with each map, check the scale as it may vary between maps.

II Legends

Legends provided on each map are self-explanatory. In the case of shore based effluent pipes, including sewer system outfalls, the arrowhead indicating outfall location is on the land side of shoreline. Similarly shore based intakes have their location indicators on the water side of the shoreline. Thus, location indicators also illustrate direction of flow through any given pipe. In some situations, because of pipe length and available map scale, offshore effluent and water intake pipes have been illustrated as shore based, however, consultation with the facing data page will give exact data on length of pipe from shore.

III Maps

Each map is numbered and is accompanied by a data page. Information on industrial, provincial or municipal intake or outfall structures within a map's borders is detailed on the data page. All intakes and outfalls, (excluding sewer system outfalls) have a numerical designation located as close to the actual structure as possible. These numerical designations begin at one (1) for each map, and relate to the "Structure Number" category on each data page. Although limited to descriptions of seven (7) structures per page there can be more than one data page relating to a simple map.

IV General

If a particular structure appears in the area of overlap between two maps the structure will be presented on one map only. However, where there is map duplication (i.e. between volumes) the structures will be mapped and data presented in both volumes.

Water and sewage treatment operations are listed by plant name. The Atlas user should refer to the location category in the data tables for identification of plant location. The abbreviations WPCP and STP describe sewage treatment operations and are assigned to an operation based on MOE designations.

V Lists of Operations:

In order to assist the user in locating the required information on a particular operation, we recommend that the user begin with our lists given below. Please note, these lists do not include municipal jurisdictions that provided sewer/drainage system information only.

Table 1: Listing of all operations that have major intake/outfall structures mapped and tabulated in the Atlas. Does not include municipal sewer/drainage outfalls.

Table 2: Listing of all operations within a given volume and a corresponding index.

Table 3: Listing of industrial operations not responding to the questionnaire (Information was subsequently supplied by the MOE).

VI Abbreviations:

Before using the Atlas it is recommended the user be familiar with the abbreviations presented in Table 4.

VII Explanation of Data Tables:

Table 5 provides a brief explanation of each information category to improve the clarity for the user.

Acknowledgments

The Canadian Great Lakes Basin Intake/Outfall Atlas was compiled by Kleinfeldt Consultants Limited, and with the assistance of the Great Lakes Section of the Ontario Ministry of the Environment's Water Resources Branch.

Kleinfeldt Consultants wishes to thank Mrs. Marta Griffiths of the MOE's Great Lakes Section for her time and patience exhibited throughout the course of this project.

We also acknowledge the efforts of Ministry of the Environment personnel, in the Great Lakes Section, as well as, Regional and District Offices who took the time and made the effort to review the data and maps contained in the Atlas, and provided comments, suggestions and additional information. Their efforts have allowed us to improve the document and hence the overall utility of the Atlas.

Kleinfeldt Consultants would also like to take this opportunity to thank the individuals in the ministry, local municipality and industry that provided information on 500 plus operations included in this Atlas. Without the cooperation and timely responses from the majority of contacts, this project would not have been a success.

Disclaimer

The information contained in this Atlas is as accurate as the information supplied in the completed and returned questionnaires. Due to the nature of the data collection, Kleinfeldt Consultants Limited is not responsible for erroneous information supplied by any one of the 400 plus operations.

Table 1

ALL OPERATIONS INCLUDED IN THE ATLAS

Lake Superior	St. Marys River	Lake Huron/Georgian Bay	St. Clair System	Lake Erie	Welland Canal/Niagara R.	Lake Ontario	St. Lawrence River
Abitibi Price Inc.	Algoma Steel Corp.	Blind River STP	Amherstburg WPCP	Amherstburg WPCP	Anger Ave. WPCP	Ajax WTP	BCL
Abitibi Price T.Bay Div.	Sault. Ste. Marie WPCP(1)	Brights Grove STP	Amherstburg WSS	Blenheim WSS	Atlas Specialty Steels	Amherstview WSS	Brockville WPCP
Canada Malting Co.	Sault. Ste. Marie WPCP(2)	Bruce A WGS	Belle River WPCP	Can. Haldiman Norfolk WSS	B.F. Goodrich Canada	Bakelite Thermosets	Brockville WTP
Dowtar Packaging Ltd.	Sault. Ste. Marie WTP(1)	Bruce B WGS	Belle River WTP	Crystal Beach WPCP	Canadian Oxy-Chemicals	Baker Road WPCP	Cardinal WPCP
James River-Marathon Ltd.	Sault. Ste. Marie WTP(2)	Bruce Heavy Water Plant	Canadian Liquid Air	Crystal Beach WTP	Casco Company	Bath WPCP	Cardinal WTP
Kimberly Clark Can. Ltd	St. Marys Paper Inc.	Bruce Mines STP	Canadian Salt Co. (1)	Dunville WTP	Cyanamid N. Falls Plant	Bath WTP	Casco Company
Marathon STP	Union Carbide Canada Ltd.	Bruce Mines WTP	Canadian Salt Co. (2)	Elgin Area WSS	Cyanamid Welland Plant	Beaconsville WTP	Charlottenburgh TWP. WTP
Nipigon STP		CIL /McDougall TWP	Chinnok Chemical Co.	Erieau Erie Beach WSS	Dowtar Fine Papers	Belleville WPCP	Cornwall WPCP
Nipigon WTP		Collingwood WPCP	CIL Inc. Lampton Works	Harrow Colchester WSS	Electro Minerals(CAN) Inc.	Belleville WTP	Cornwall WTP
Northern Wood Preservers		Collingwood WTP	Corunna WPCP	H. J. Heinz Co.	Fleet Manufacturing Co.	Biggar Lagoon	Courtaulds Ltd.
Pancake Bay Prov. Park		Dowtar Inc. Sifto Salt	Courtright WPCP	Inco Metals Inc.	Ford Motor Co.	Borg-Warner Chemicals	Dowtar Fine Paper
Provincial Paper Division		Douglas Point WGS	Dow Chemical Canada Ltd.	Int. Min. & Chemicals	Fort Erie North Pump Stn.	Bowmanville WTP #1	Dupont Canada
Red Rock WPCP		Eldorado Resources Ltd.	DuPont Canada Inc.	Kent County WSS	Fort Erie South Pump Stn.	Bowmanville WTP #2	Edwardsburg WPCP
Red Rock WTP		Goderich WPCP	Edgewater Beach WPCP	Leamington WPCP	General Motors of Can.Ltd	Brighton STP	Gananoque Lagoon
Rosspoint WTP		Goderich WTP	Esso Petroleum Canada	Nanticoke TGS	Hayes Dana Dr. Train Div.	Burlington WTP	Gananoque WTP
Schreiber STP		Goodyear Canada Inc.	Ethyl Canada Inc.	Oastead Foods Ltd.	Holiday Farms	Canada Cement Lafarge Ltd	Iroquois STP
Schreiber WTP		Goodyear Canada Inc.	Fiberglass Canada Inc.	Port Burwell WPCP	Inco Metals Ltd.	Canada Malting Co. Ltd.	Iroquois WTP
Thunder Bay TGS		Gore Bay WPCP	Ford Motor Co. of Can.Ltd	Port Dover WPCP	Kimberly Clark Of Canada	Canadian Vegetable Oil	Kingston (City) WPCP
Thunder Bay WPCP		Gore Bay WTP	General Chemical	Port Dover WTP	Niagara Falls WTP	Canron Inc.	Kraft Foods Ltd.
Thunder Bay WTP		Grand Bend STP	General Motors of Canada	Port Rowan WPCP	Niagara-on-the-Lake STP	Celanese Canada Inc.	Long Sault WPCP
		Kilbear Provincial Park	Hiram Walker & Sons Ltd	Port Rowan WTP	Niagara-on-the-Lake WTP	CFB Mountainview WTP	Long Sault WTP
		Kincardine WPCP	J. C. Keath TGS	Port Stanley WTP	Norton Co.	CFB Trenton WPCP	Marimac Inc.
		Kincardine WTP	Lampton County WSS	Port Stanley STP	Ontario Paper Co.	Chrysler Canada Ltd.	Morrisburg WPCP
		Lake Huron WSS	Lampton TGS	Raleigh TWP STP	Ontario Power Co.	Clarkson WPCP	Morrisburg WTP
		Lions Head WTP	Little River WPCP	Rock Pt. Provincial Park	Port Weller WPCP	Cobourg STP #1	Nitrochem Inc.
		Little Current WTP	Mitchells Bay WPCP	Romey WPCP	Seaway WPCP	Cobourg STP #2	Osnabruck TWP WPCP
		McGregor Point Prov. Park	Mitchells Bay WTP	Rosehill WTP	Sir Adam Beck #1 HGS	Cobourg WTP	Osnabruck TWP WTP
		Meaford WPCP	Novacor Chemicals	Selkirk Provincial Pk.	Sir Adam Beck #2 HGS	Corbett Creek WPCP	Phillips Cables
		Meaford WTP	Petrosar Corunna	Stelco Inc. Erie Works	Stampford/Niagra STP	Darlington WGS	Prescott WTP
		Midland WPCP	Point Edward WPCP	Texaco Canada Inc.	Stelco Inc. Page Hersey	Deseronto WPCP	Richmond Die Casting Ltd.
		Mitsubishi Electronics	Polysar Ltd.	Turkey Pt. Provincial Pk.	Stelco Inc. Welland Tube	Deseronto WTP	River St. Pumping St
		Owen Sound WPCP	Port Lampton WPCP	Union Gas Ltd.	Stevensville Lagoon	Dofasco Inc.	Rohm & Hass Canada Inc.
		Owen Sound WTP	Sarnia WPCP	Union WSS	Union Carbide Canada Ltd.	Dowtar Packaging	
		Parry Sound WTP	Shell Canada Ltd.	West Lorne WTP	Welland WPCP	Dowtar Wood Preserving	
		Penetanguishene WPCP	Sombra WPCP	Wheatly WTP	Welland WSS	Duffins Creek WPCP	
		Penetang. Hospital STP	Stoney Point WPCP			DuPont Canada Ltd.	
		Petrolia WTP	Sunoco Inc.			Easterly Filtration Plant	
		Port Elgin WTP	The Segrain Co. Ltd.			Eldorado Resource Ltd.(1)	
		Port McNicoll STP	Tilbury North WSS			Eldorado Resource Ltd.(2)	
		Port McNicoll WTP	Tilbury WTP			Eldorado Resource Ltd.(3)	
		Rio Algom Ltd.	Wallaceburg WPCP			Elizabeth Gardens PS	
		Southampton WPCP	Wickes Bumper Co. Ltd.			E.D. Smith Limited	
		Southampton WTP	Windsor PUC WTP			Ford Motor Co. of Can.Ltd	
		Standard Aggregates Inc.	Windsor Tecumseh WTP			General Motors of Canada	
		Thessalon Pump House	Windsor WPCP			Goodyear Canada	
		Thessalon STP				Graham Creek WPCP	
		Thornbury WPCP				Griesby WTP	
		Thornbury WTP				Hamilton Wentworth WPCP	

ALL OPERATIONS INCLUDED IN THE ATLAS

[illegible]

Table 1

ALL OPERATIONS INCLUDED IN THE ATLAS

Lake Superior	St. Marys River	Lake Huron/Georgian Bay	St. Clair System	Lake Erie	Welland Canal/Niagara R.	Lake Ontario	St. Lawrence River
						South East WPCP	
						South West WPCP	
						Stelco Inc Parkdale Works	
						Stelco Inc.	
						St. Lawrence Cement	
						St. Lawrence Starch Co.	
						St. Marys Cement Co.	
						Texaco Canada Inc. (1)	
						Texaco Canada Inc. (2)	
						Trenton WPCP	
						Trenton WTP	
						TWP of Etobicoke STP	
						Union Carbide Can. Ltd.	
						Victory Soya Mills	
						Vineland WTP	
						Waupoos Canning Co. Ltd.	
						Wellington Mushroom Farm	
						Wellington WPCP	
						Whitby WTP	

Table 2

OPERATIONS INCLUDED IN VOLUME 3
LAKE HURON/GEORGIAN BAY

Operation	Map Number
Blind River STP	4
Brights Grove STP	75
Bruce A NGS	59
Bruce B NGS	59
Bruce Heavy Water Plant	59
Bruce Mines STP	2A
Bruce Mines WTP	2A
CIL /McDougall TWP	12
Collingwood WPCP	29
Collingwood WTP	29
Domtar Inc. Sifto Salt	65
Douglas Point NGS	59
Eldorado Resources Ltd.	3
Goderich WPCP	65
Goderich WTP	65
Goodyear Canada Inc.	29
Goodyear Canada Inc.	38
Gore Bay WPCP	6
Gore Bay WTP	6
Grand Bend STP	70
Kilbear Provincial Park	11
Kinkardine WPCP	61
Kinkardine WTP	61
Lake Huron WSS	70
Lions Head WTP	44
Little Current WTP	8A
McGregor Provincial Park	57
Meaford WPCP	33
Meaford WTP	33
Midland WPCP	22
Mitsubishi Electronics	19
Owen Sound WPCP	38
Owen Sound WTP	38
Parry Sound WTP	13
Penetanguishene WPCP	23
Penetang. Hospital WPCP	23
Petrolia WTP	75
Port Elgin WTP	55
Port McNicoll STP	20
Port McNicoll WTP	19
Rio Algom Ltd.	3
Southampton WPCP	56
Southampton WTP	56
Standard Aggregates Inc.	2C
Thessalon Pump House	2B
Thessalon STP	2B
Thornbury WPCP	31

Thornbury WTP	31
TWP of Assignack WPCP	88
TWP of Assignack WTP	88
Victoria Harbour WPCP	19
Victoria Harbour WTP	20
Waubashene WTP	19
Wiarton WPCP	41
Wiarton WTP	41

Table 3
INDUSTRY NOT RESPONDING TO QUESTIONNAIRE
INFORMATION OBTAINED FROM MOE

Name of Operation	Location	Comments
Arrowhead Metals	Toronto	No applicable intake or outfall structures
BCL	Cornwall	From Southeast Regional Office
Courtaulds	Cornwall	From Southeast Regional Office
Domtar Construction Materials	Thorold	From Welland District Office
Domtar Wood Preservers	Trenton	From Southeast Regional Office
Du Pont	Corunna	From Southwest Regional Office
Du Pont	Kingston	From Southeast Regional Office
Du Pont	Whitby	No applicable intake or outfall structures
Du Pont	Maitland	From Southeast Regional Office
Esco Ltd.	Whitby	No applicable intake or outfall structures
Fittings Ltd.	Whitby	No applicable intake or outfall structures
Ford Motor Co. of Canada	Essex Engine Plant	No applicable intake or outfall structures
Ford Motor Co. of Canada	Windsor Engine Plant	From Southwest Regional Office
General Chemicals	Sombra	From Southwest Regional Office
Holiday Farms	Niagara Falls	From Welland District Office
Kraft Ltd.	Williamstown	No applicable intake or outfall structures
Kraft Ltd.	Wolfe Island	No applicable intake or outfall structures
Kraft Ltd.	Ingleside	From Southeast Regional Office

Table 4

LIST OF ABBREVIATIONS

CEN	Central	
CFB	Canadian Forces Base	
CSO	Combined Sewer Overflow	
DND	Department of National Defence	
EO	Emergency Overflow	
IND	Industrial Operation	
MGS	Ministry of Government Services	
MNR	Ministry of Natural Resources	
MOE	Ministry of the Environment	
MUN	Municipal Operation	
NA	Not Available	
NGS	Nuclear Generating Station	
P Removal	Phosphorus Removal	
PP	Provincial Park	
PS	Pumping Station	
PUC	Public Utilities Commission	
RM	Regional Municipality	
S	Sanitary Sewer Overflow	
SS	Storm Sewer	
STP	Sewage Treatment Plant (same as WPCP)	
TGS	Thermal Generating Station	
TWP	Township	
UV	Ultra-Violet	
WPCP	Water Pollution Control Plant (same as STP)	
WSS	Water Supply System	
WTP	Water Treatment Plants	

TABLE 5

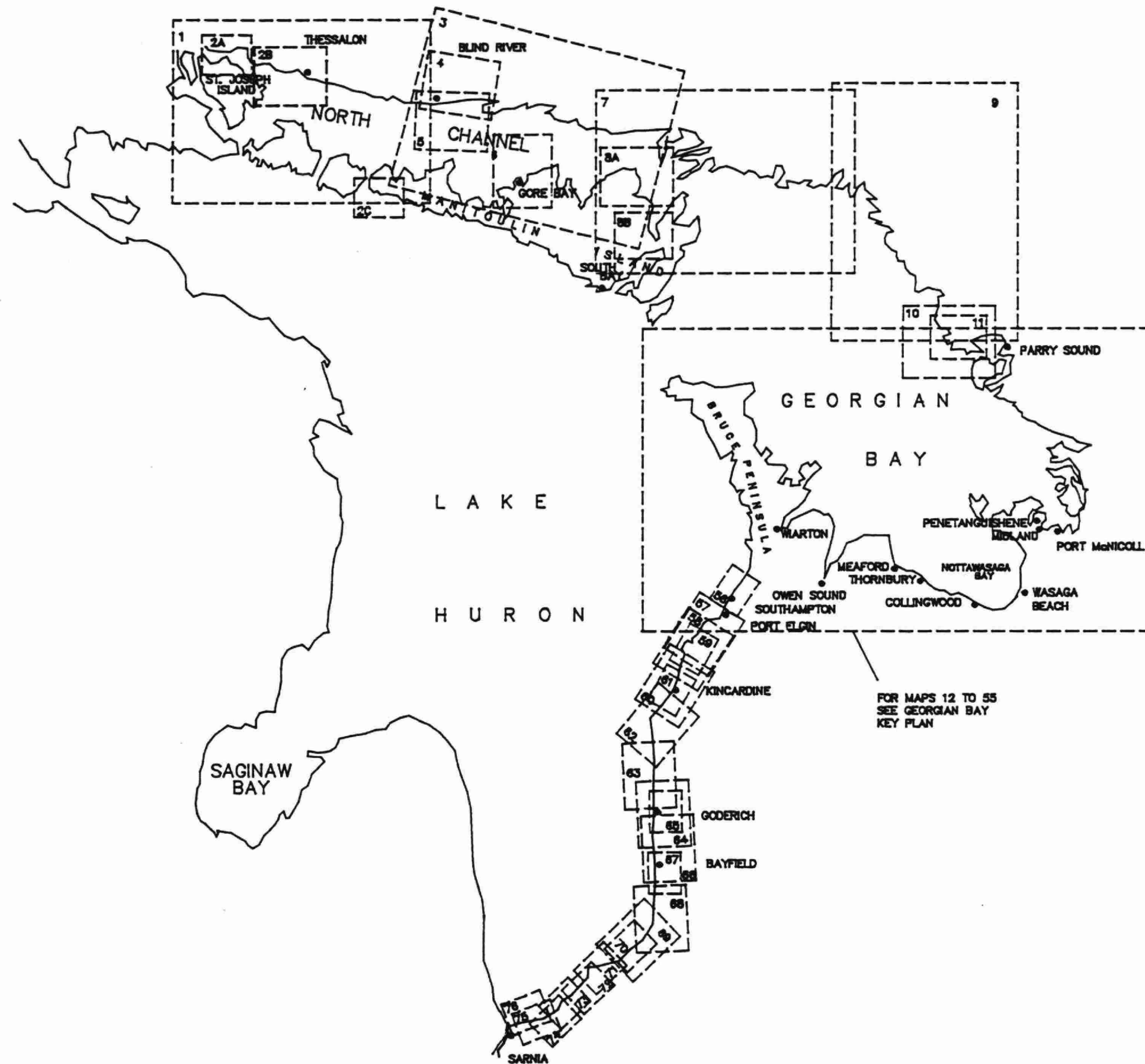
EXPLANATION OF DATA TABLES

Name of Operation:	Name of municipality or industry
Intake/Outfall:	Indication of Use of pipe
UMIS/IMIS No.:	Number in the Ministry's Utility Monitoring Information System and Industrial Monitoring Information System from which other data can be obtained.
Structure No.:	Indicates structures on the accompanying map.
Map No.:	Indicates map on which the structure can be located.
Operating Authority:	Identifies who owns or has jurisdiction over the facility i.e. Industry, MOE, MNR, MUN, PUC, MGS, etc.
Location:	Identifies where the facility and accompanying structures are located (usually indicated by as City, Town or Township).
Supplier/Receiver:	Identifies the water body that wither supplies water to a facility via the intake, or receives effluent via the outfall.
Point of Discharge:	Applies to outfalls only. Indicates location of discharge i.e. shore (0-99 m from shoreline), offshore (>100m from shoreline), harbour, embayment, river mouth (0-2 km upstream from lake).
Terminal Basin:	Lake or river basin, from which water is drawn or effluent discharged to
Activity:	General categorization of a particular facility (eg. Steel Production, Municipal Water Treatment, etc.)
Process Type:	Description of activity (eg. Major phases of Steel production, Physical and Chemical Treatment, Secondary Treatment, etc.)
Supply/Discharge Type:	Description of how water is drawn in, or effluent discharged (eg. Continuous, Batch Seasonal, etc.)

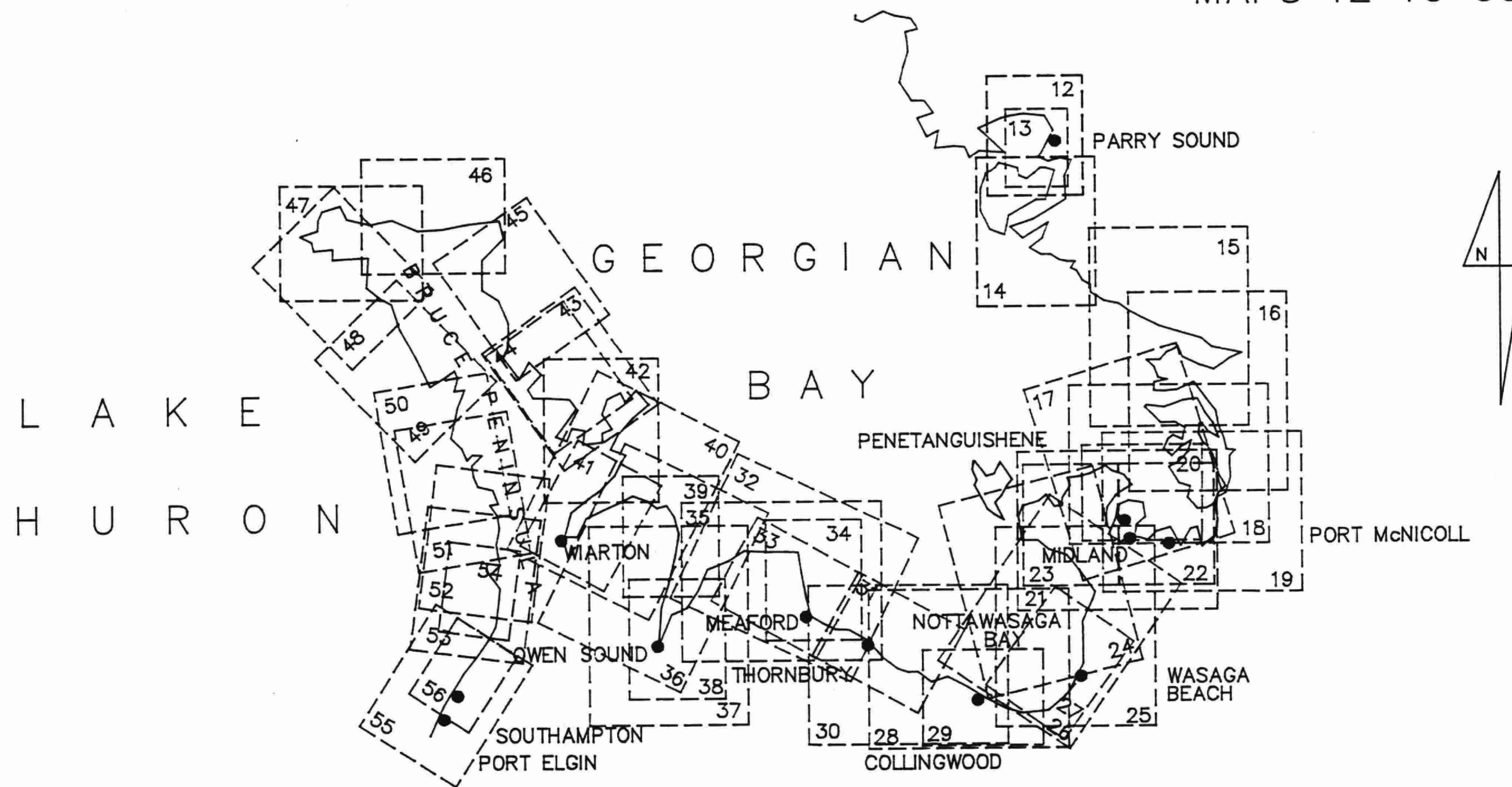
Treatment Type:	Description of how water and/or effluent is treated before use/before discharge. Indication of major steps in treatment, if any.
Comments:	Any other remarks relating to the operation, its intakes or outfalls, process or treatment activities, such as plant closures, future modifications, relationship with nearby operations, etc;
Design Flow:	Quantity (in 1,000 m ³ /day) of water can be drawn in via intake or discharged via outfall according to design specifications.
Mean Annual Flow:	Quantity (in 1,000 m ³ /day) on the average, of water can be drawn in via intake or discharged via outfall according to design specifications.
Pipe Length from Shore:	Length of intake/outfall pipe from shore, given in metres.
Pipe Diameter:	Given in centimeters. If pipe is rectangular or oval in shape, the largest dimension is given.
Water Depth at End of Pipe:	Depth of water, in metres, at the end of the pipe.
Water Depth above End of Pipe:	Depth of water, in metres, above the end of the pipe.
Diffuser:	Applies to outfall structures only. Indicates if an effluent diffusing structure is present on the outfall.
Number of Ports:	If diffuser is present on the outfall an indication is given to the number of ports in the diffusing structure.

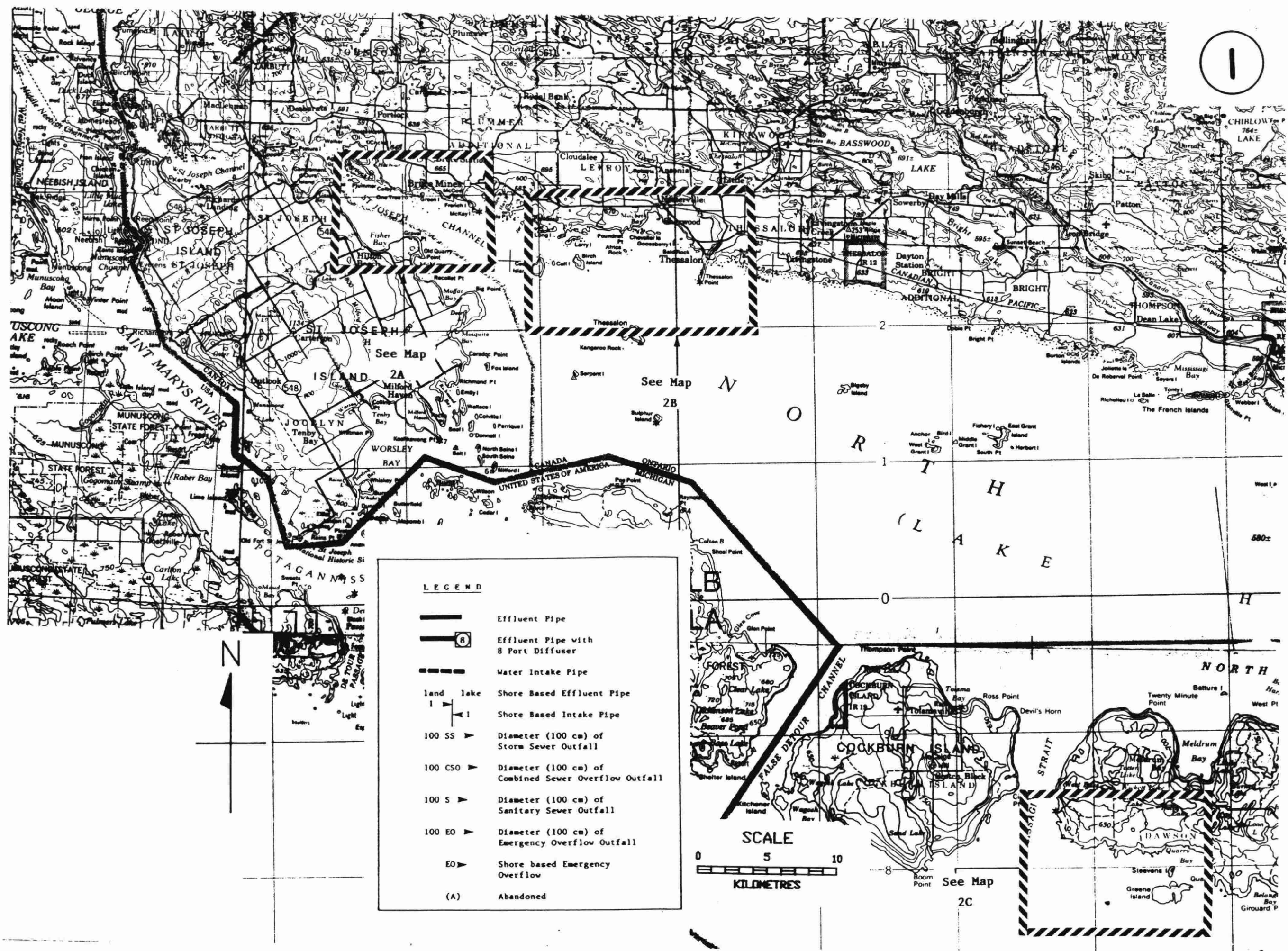
KEY PLAN

LAKE HURON/GEORGIAN BAY KEY PLAN

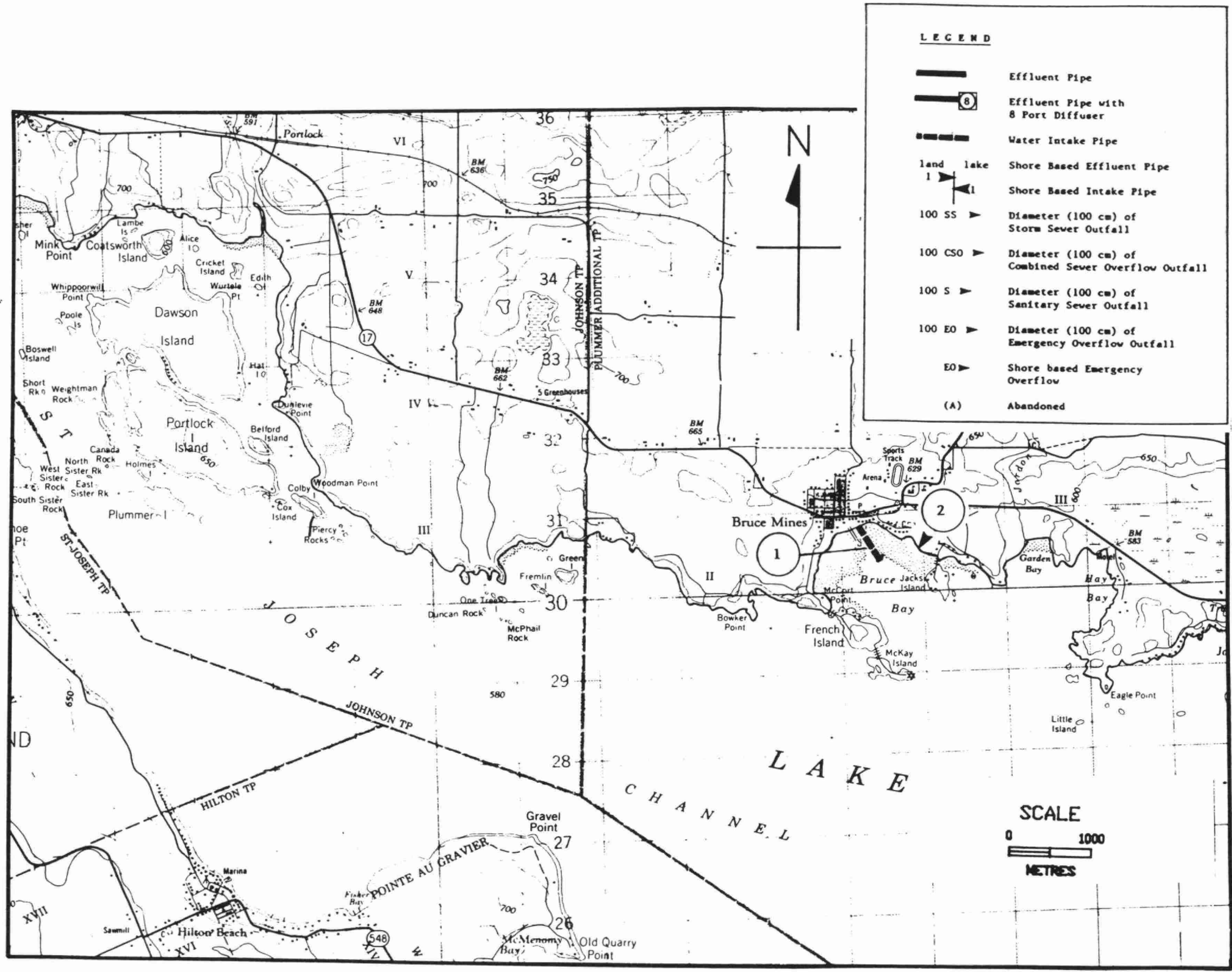


GEORGIAN BAY
KEY PLAN
MAPS 12 TO 55





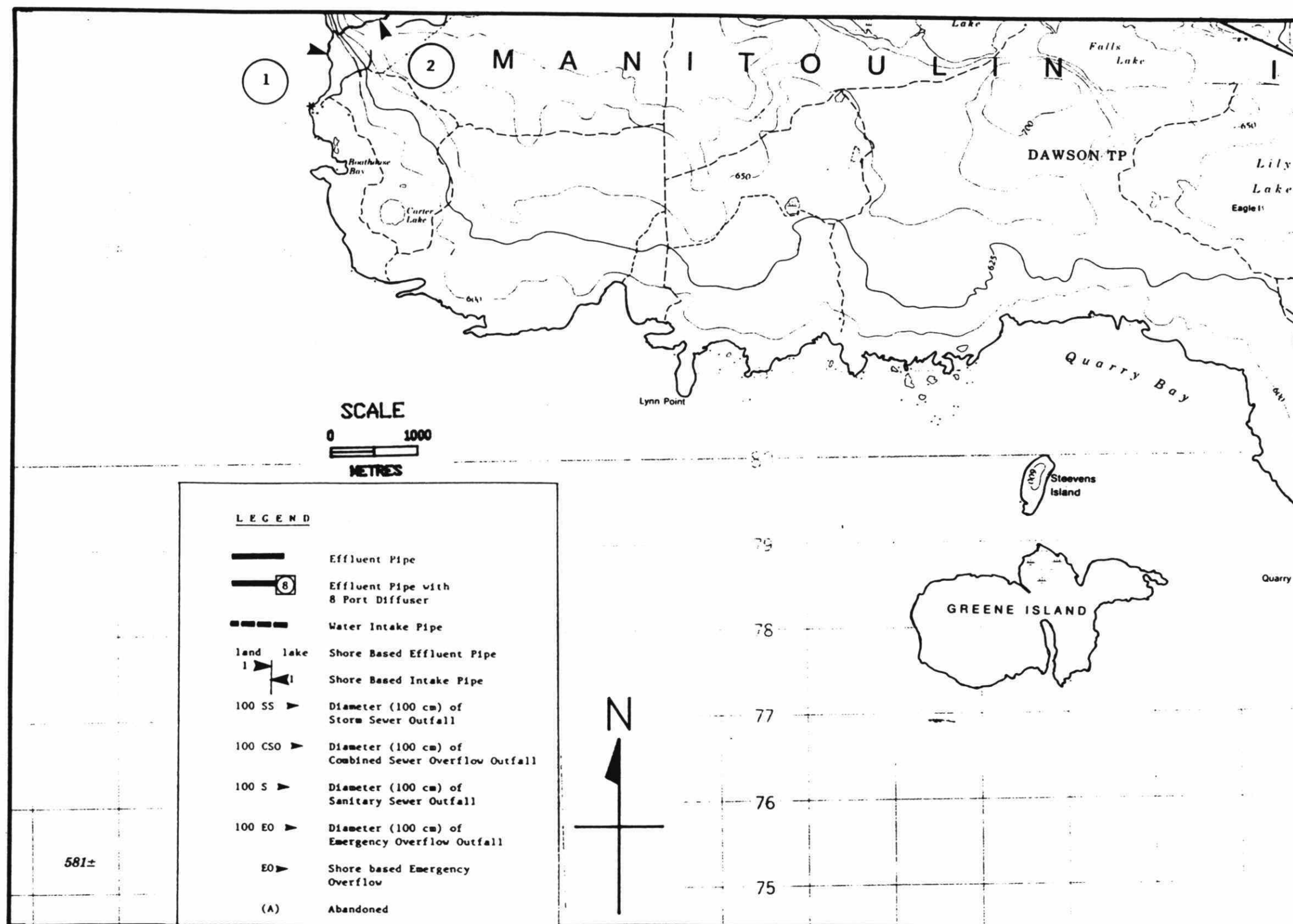
Name	Bruce Mines WTP	Bruce Mines STP					
Intake/Outfall	Intake	Outfall					
UMIS/INIS No.	110001756	210000933					
Structure No.	1	2					
Map Number	2A	2A					
Operating Authority	MOE	MOE					
Location	Bruce Mines	Bruce Mines					
Supplier/Receiver	Lake Huron	Ditch to North Channel					
Point of Discharge		River Mouth					
Terminal Basin	Lake Huron	Lake Huron					
Activity	Municipal Water Treatment	Municipal Sewage Treatment					
Process Type	Chemical Treatment	Secondary Treatment					
Supply/Discharge Type	Continuous	Batch					
Treatment Type	Chlorination	Conventional Lagoon Settling for six months					
Comments		Seasonal Discharge twice a year Fall, Spring					
Design Flow (1000m3/day)	0.49	1.06					
Mean Annual Flow (1000m3/day)	1.86	0.36					
Pipe length from shore (m)	487.80	20.32					
Pipe Diameter (cm)	30.48	NA					
Water Depth at end of pipe (m)	12.19	NA					
Water depth above end of pipe (m)	11.00						
Diffuser		NO					
Number of ports							



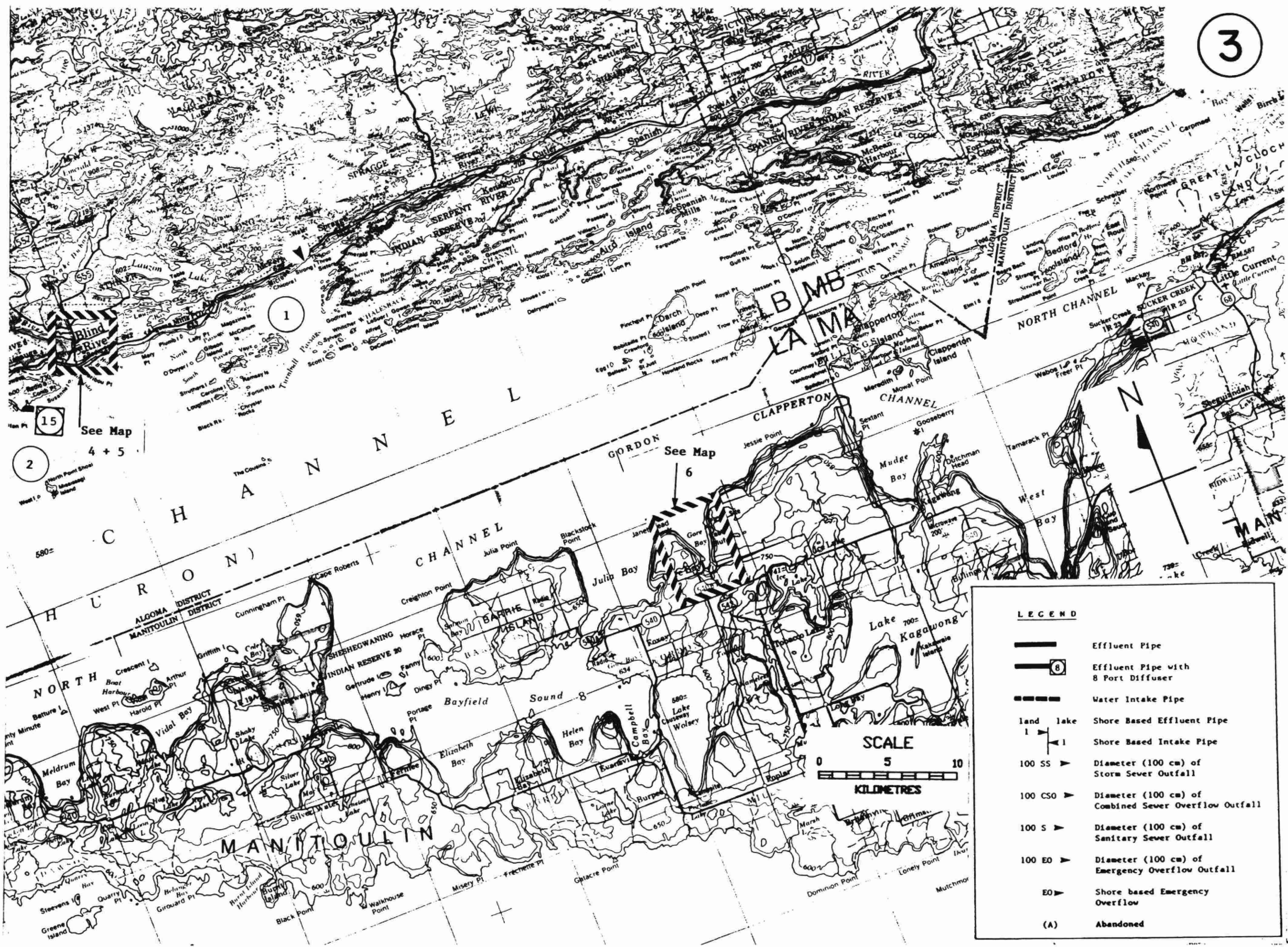
Name	Thessalon Pump House	Thessalon STP					
Intake/Outfall	Intake	Outfall					
UMIS/INIS No.	220002814	110002434					
Structure No.	1	2					
Map Number	2B	2B					
Operating Authority	MUN	MOE					
Location	Thessalon	Thessalon					
Supplier/Receiver	North Channel	Lake Huron					
Point of Discharge	Offshore	Shore to Silver Creek					
Terminal Basin	Lake Huron	Lake Huron					
Activity	Municipal Water Treatment	Municipal Sewage Treatment					
Process Type		Secondary Treatment					
Supply/Discharge Type	Continuous	Batch					
Treatment Type	Chlorination	Conventional Lagoon Settling for six months					
Comments		Seasonal Discharge twice a year Fall, Spring					
Design Flow (1000m3/day)	NA	1.23					
Mean Annual Flow (1000m3/day)	NA	1.06					
Pipe length from shore (m)	250.00	NA					
Pipe Diameter (cm)	61.00	30.48					
Water Depth at end of pipe (m)	6.10	NA					
Water depth above end of pipe (m)	6.10	NA					
Diffuser		NO					
Number of ports							

- | | |
|--|---|
|  | Effluent Pipe |
|  | Effluent Pipe with
8 Port Diffuser |
|  | Water Intake Pipe |
|  land lake
 | Shore Based Effluent Pipe |
| 100 SS ➤ | Diameter (100 cm) of
Storm Sewer Outfall |
| 100 CSO ➤ | Diameter (100 cm) of
Combined Sewer Overflow Outfall |
| 100 S ➤ | Diameter (100 cm) of
Sanitary Sewer Outfall |
| 100 EO ➤ | Diameter (100 cm) of
Emergency Overflow Outfall |
| EO ➤ | Shore based Emergency
Overflow |
| (A) | Abandoned |

Name	Standard Aggregates Inc.	Standard Aggregates Inc.				
Intake/Outfall	Outfall	Intake				
UMIS/INIS No.	NA	NA				
Structure No.	1	2				
Map Number	2C	2C				
Operating Authority	IND	IND				
Location	Small Creek	Meldrum Bay				
Supplier/Receiver	Lake Huron	Lake Huron				
Point of Discharge	River Mouth					
Terminal Basin	Lake Huron	Lake Huron				
Activity	Rock Quarry	Rock Quarry				
Process Type	Crushing of Dolomite	Crushing of Dolomite				
	Bedrock extracted from	Bedrock extracted from				
	open pit mine	open pit mine				
Supply/Discharge Type	Batch	Batch				
Treatment Type	Settling Ponds	No treatment				
Comments	Pipe discharges into Beaver pond	Plant operates only six months a year, water used to wash aggregate				
Design Flow (1000m ³ /day)	0.39	0.39				
Mean Annual Flow (1000m ³ /day)	NA	NA				
Pipe length from shore (m)	0.00	7.00				
Pipe Diameter (cm)	45.00	20.00				
Water Depth at end of pipe (m)		2.00				
Water depth above end of pipe (m)		3.00				
Diffuser	NO					
Number of ports						



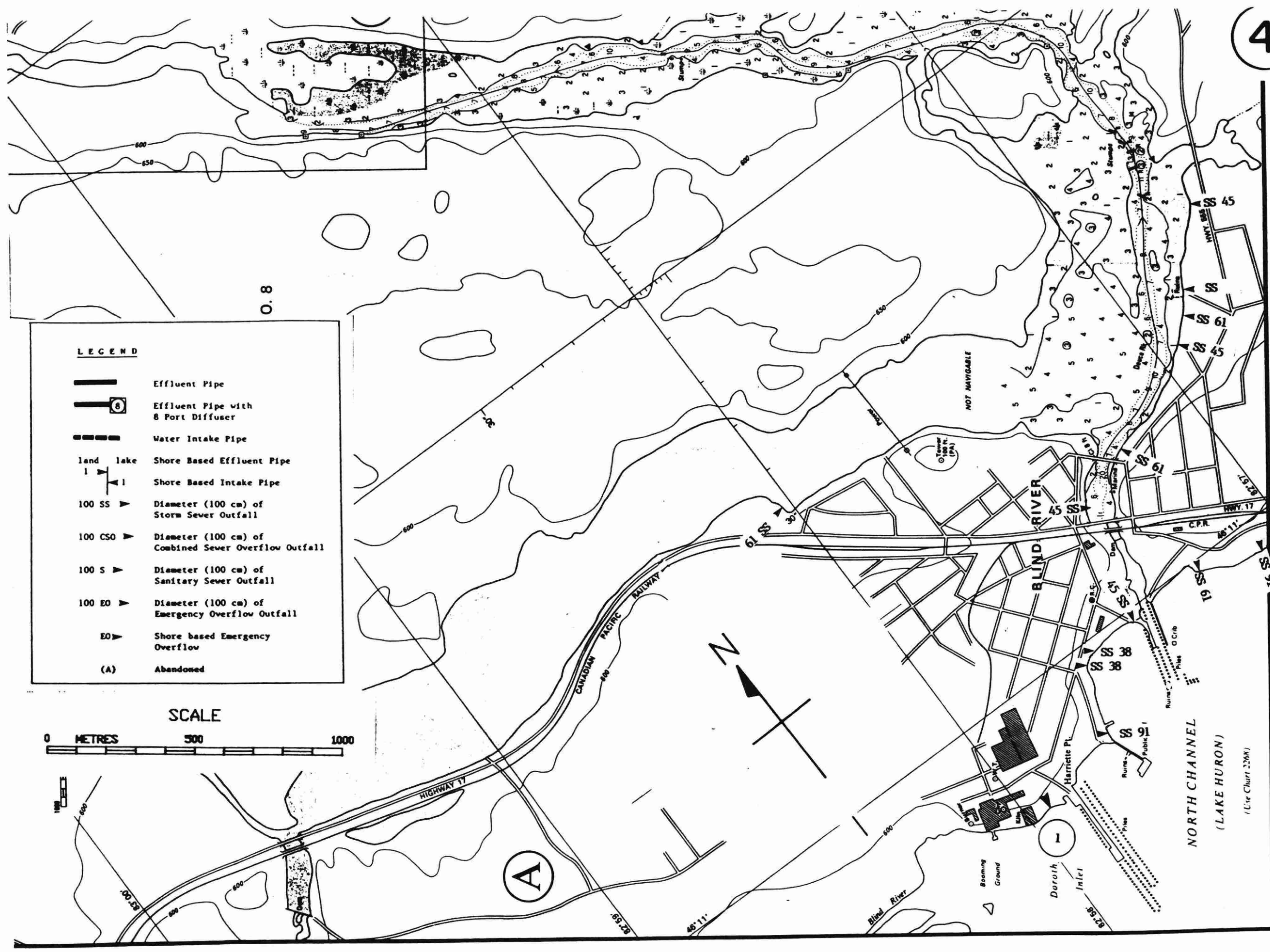
Name	Rio Algom Ltd.	Eldorado Resources Ltd.				
Intake/Outfall	Outfall	Outfall				
UMIS/IMIS No.	NA	0000830308				
Structure No.	1	2				
Map Number	3	3				
Operating Authority	IND	IND				
Location	Pronto Mine Site	Near Blind River				
Supplier/Receiver	Serpent River	Lake Huron				
Point of Discharge	Shore	Offshore				
Terminal Basin	Lake Huron	Lake Huron				
Activity	Idle Uranium/Copper Mine	Metal Smelting and Refining, of Uranium Trioxide				
Process Type	NA	Solvent extraction, chemical purification to reactor grade fuel				
Supply/Discharge Type	Batch	Batch (5 times per week)				
Treatment Type	Tailings Ponds Lime treatment of sludge	pH adjustment, recycling and lagoon treatment if required				
Comments	Free running stream from tailings pond.					
Design Flow (1000m3/day)	19.70	3.00				
Mean Annual Flow (1000m3/day)	4.40	0.38				
Pipe length from shore (m)	NA	891.00				
Pipe Diameter (cm)	NA	20.00				
Water Depth at end of pipe (m)	NA	4.90				
Water depth above end of pipe (m)	NA	4.30				
Diffuser	NO	YES				
Number of ports		15.00				



LEGEND

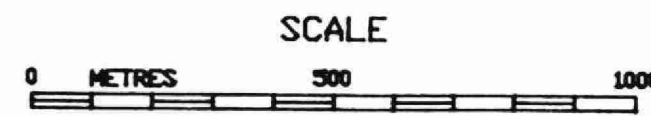
- Effluent Pipe
- 8 Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS > Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S > Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO > Diameter (100 cm) of Emergency Overflow Outfall
- EO > Shore based Emergency Overflow
- (A) Abandoned

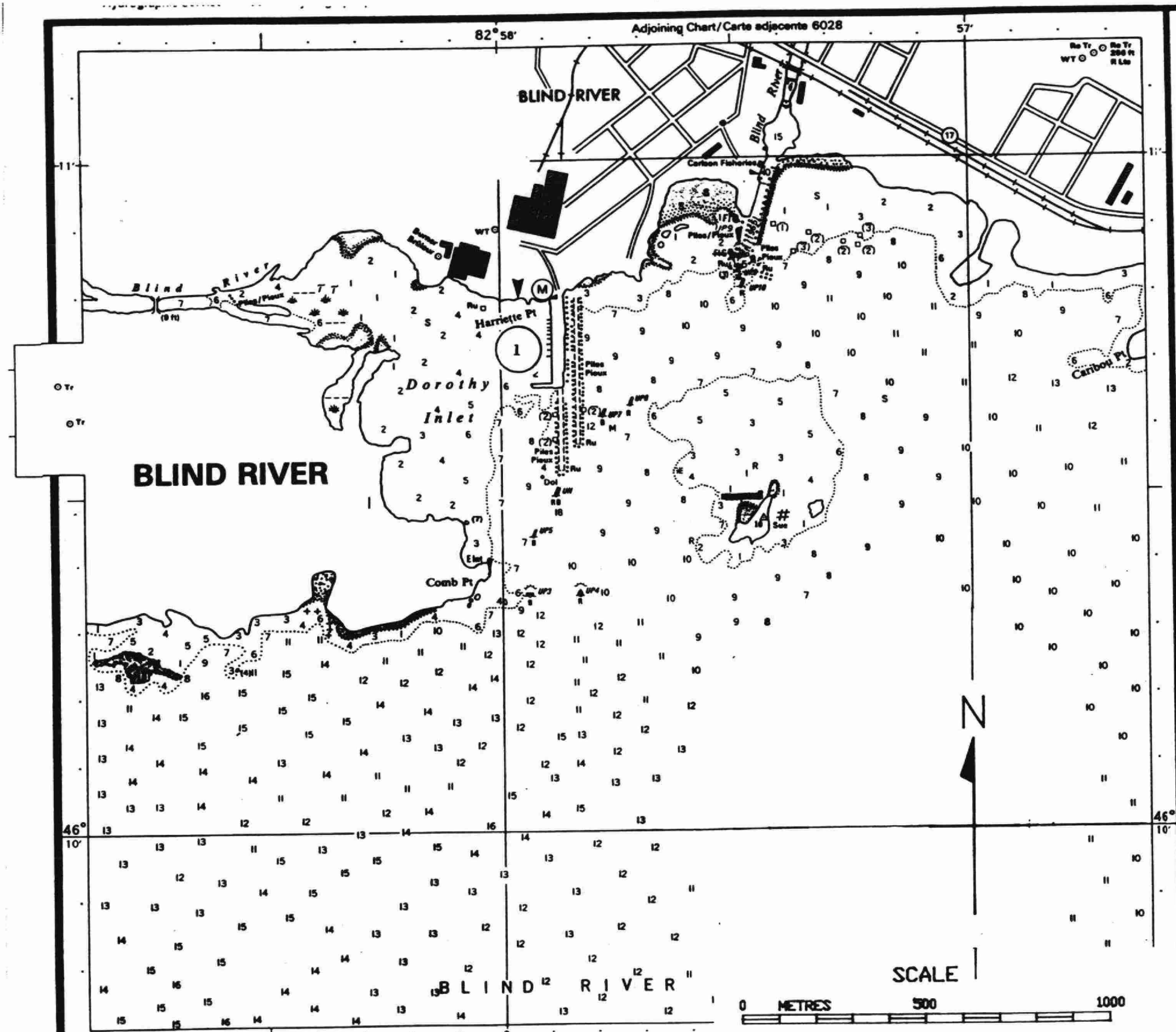
Name	Blind River STP						
Intake/Outfall	Outfall						
UMIS/IMIS No.	110002416						
Structure No.	1						
Map Number	4						
Operating Authority	MUN						
Location	Blind River						
Supplier/Receiver	Borthy Inlet						
Point of Discharge	Embayment						
Terminal Basin	Lake Huron						
Activity	Municipal Sewage Treatment						
Process Type	Secondary Treatment						
Supply/Discharge Type	NA						
Treatment Type	Extended Aeration						
Comments							
Design Flow (1000m3/day)	3.50						
Mean Annual Flow (1000m3/day)	2.60						
Pipe length from shore (m)	NA						
Pipe Diameter (cm)	46.00						
Water Depth at end of pipe (m)	NA						
Water depth above end of pipe (m)	NA						
Diffuser	NO						
Number of ports							



LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- Diameter (100 cm) of Storm Sewer Outfall
- Diameter (100 cm) of Combined Sewer Overflow Outfall
- Diameter (100 cm) of Sanitary Sewer Outfall
- Diameter (100 cm) of Emergency Overflow Outfall
- Shore based Emergency Overflow
- Abandoned



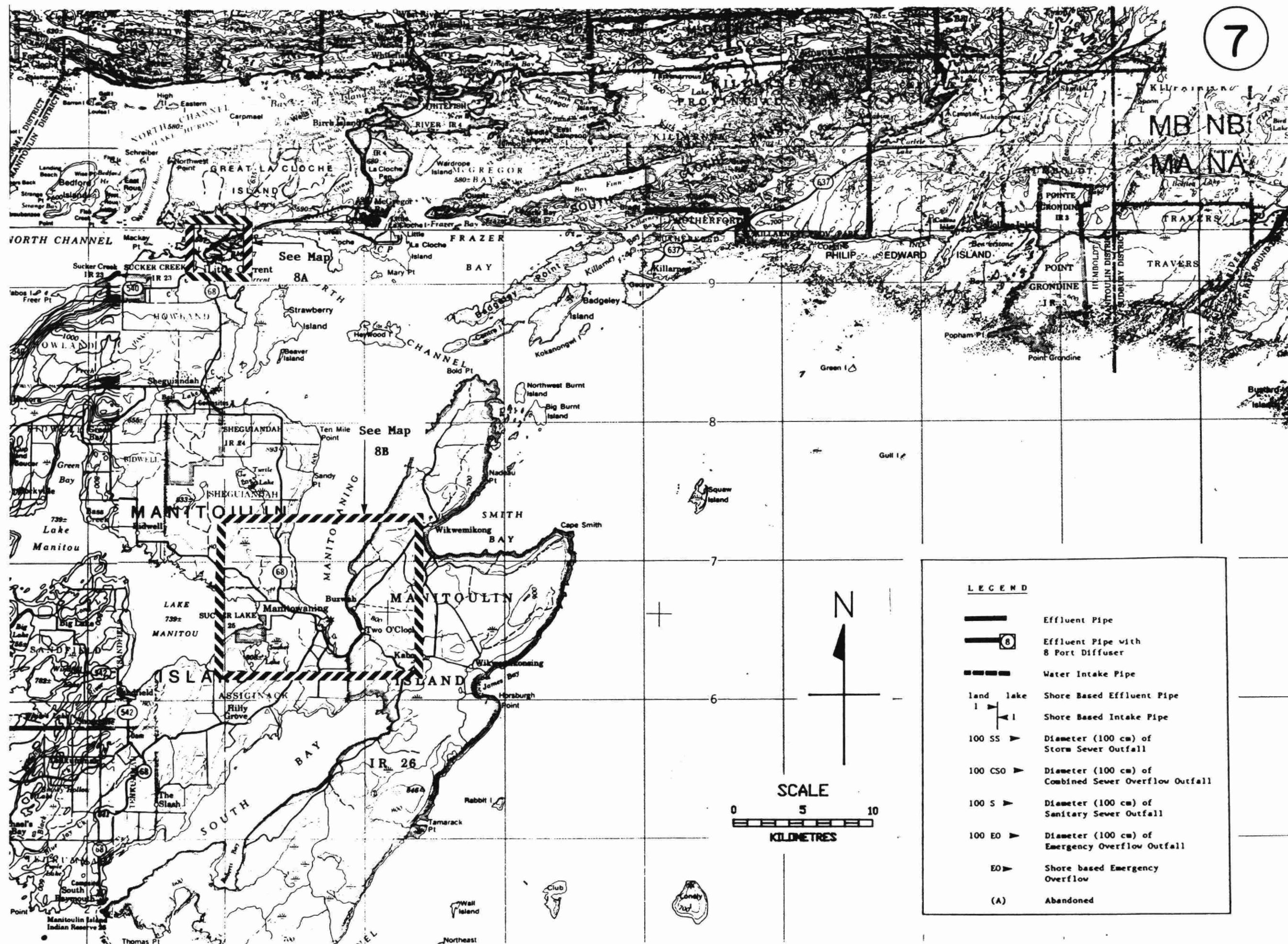


LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- Diameter (100 cm) of Storm Sewer Outfall
- Diameter (100 cm) of Combined Sewer Overflow Outfall
- Diameter (100 cm) of Sanitary Sewer Outfall
- Diameter (100 cm) of Emergency Overflow Outfall
- Shore based Emergency Overflow
- Abandoned

Name	Gore Bay WPCP	Gore Bay WTP				
Intake/Outfall	Outfall	Intake				
UMIS/IMIS No.	110002513	220000167				
Structure No.	1	2				
Map Number	6	6				
Operating Authority	MOR	MUN				
Location	Gore Bay	Gore Bay				
Supplier/Receiver	Gore Bay	Gore Bay				
Point of Discharge	Offshore					
Terminal Basin	Lake Huron	Lake Huron				
Activity	Municipal Sewage Treatment	Municipal Water Treatment				
Process Type	Secondary Treatment	Physical and Chemical Treatment				
Supply/Discharge Type	Batch	Continuous				
Treatment Type	Conventional Lagoon Settling for six months	Screening Chlorination				
Comments	Seasonal Discharge twice a year Fall, Spring					
Design Flow (1000m3/day)	0.63	0.45				
Mean Annual Flow (1000m3/day)	0.43	0.45				
Pipe length from shore (m)	142.00	122.00				
Pipe Diameter (cm)	30.00	20.32				
Water Depth at end of pipe (m)	12.30	6.10				
Water depth above end of pipe (m)	10.70					
Diffuser	NO					
Number of ports						

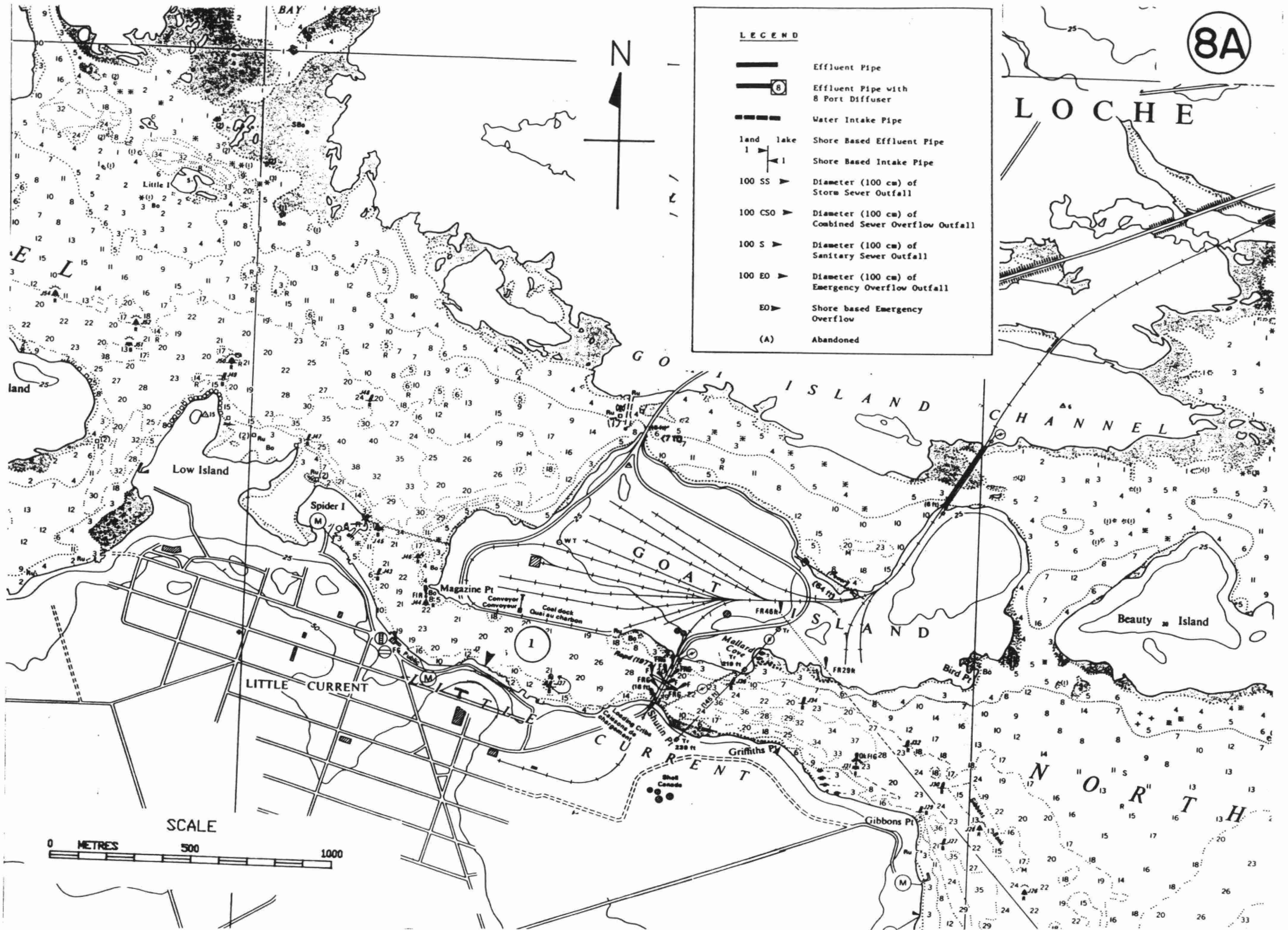
	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
land lake	Shore Based Effluent Pipe
1 1	Shore Based Intake Pipe
100 SS	Diameter (100 cm) of Storm Sever Outfall
100 CSO	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO	Diameter (100 cm) of Emergency Overflow Outfall
EO	Shore based Emergency Overflow
(A)	Abandoned



LEGEND

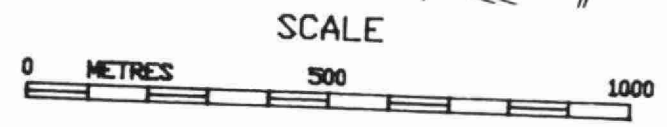
- Effluent Pipe
- 8 Effluent Pipe with 8 Port Diffuser
- - - Water Intake Pipe
- land lake Shore Based Effluent Pipe
- 1 1 Shore Based Intake Pipe
- 100 SS > Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S > Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO > Diameter (100 cm) of Emergency Overflow Outfall
- EO > Shore based Emergency Overflow
- (A) Abandoned

Name	Little Current WTP						
Intake/Outfall	Intake						
UMIS/INIS No.	220002191						
Structure No.	1						
Map Number	BA						
Operating Authority	MUN						
Location	Little Current						
Supplier/Receiver	North Channel						
Point of Discharge							
Terminal Basin	Lake Huron						
Activity	Municipal Water Treatment						
Process Type	Physical and Chemical Treatment						
Supply/Discharge Type	Continuous						
Treatment Type	Screening Chlorination						
Comments							
Design Flow (1000m ³ /day)	2.70						
Mean Annual Flow (1000m ³ /day)	2.00						
Pipe length from shore (m)	20.00						
Pipe Diameter (cm)	30.50						
Water Depth at end of pipe (m)	3.00						
Water depth above end of pipe (m)	NA						
Diffuser							
Number of ports							

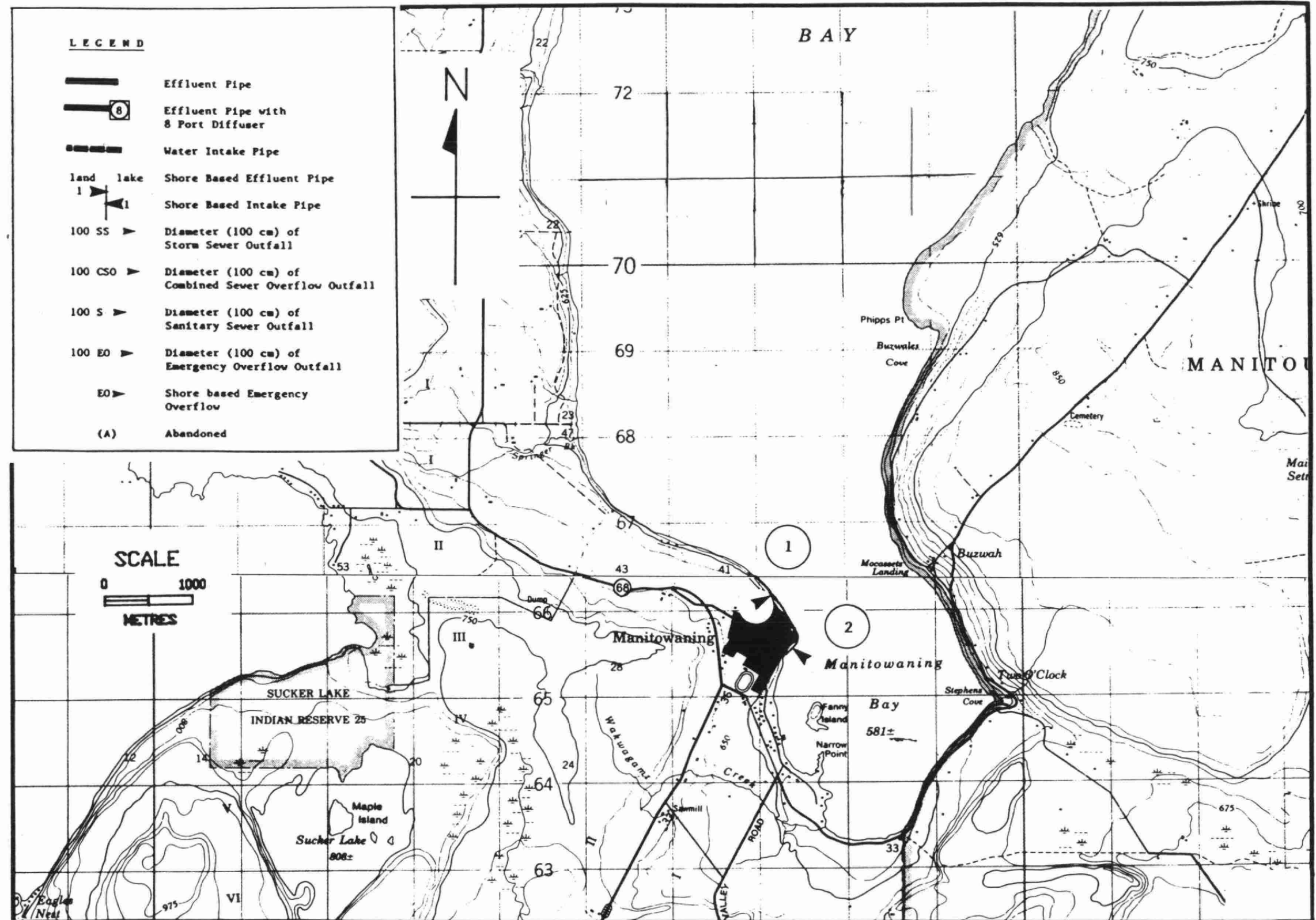


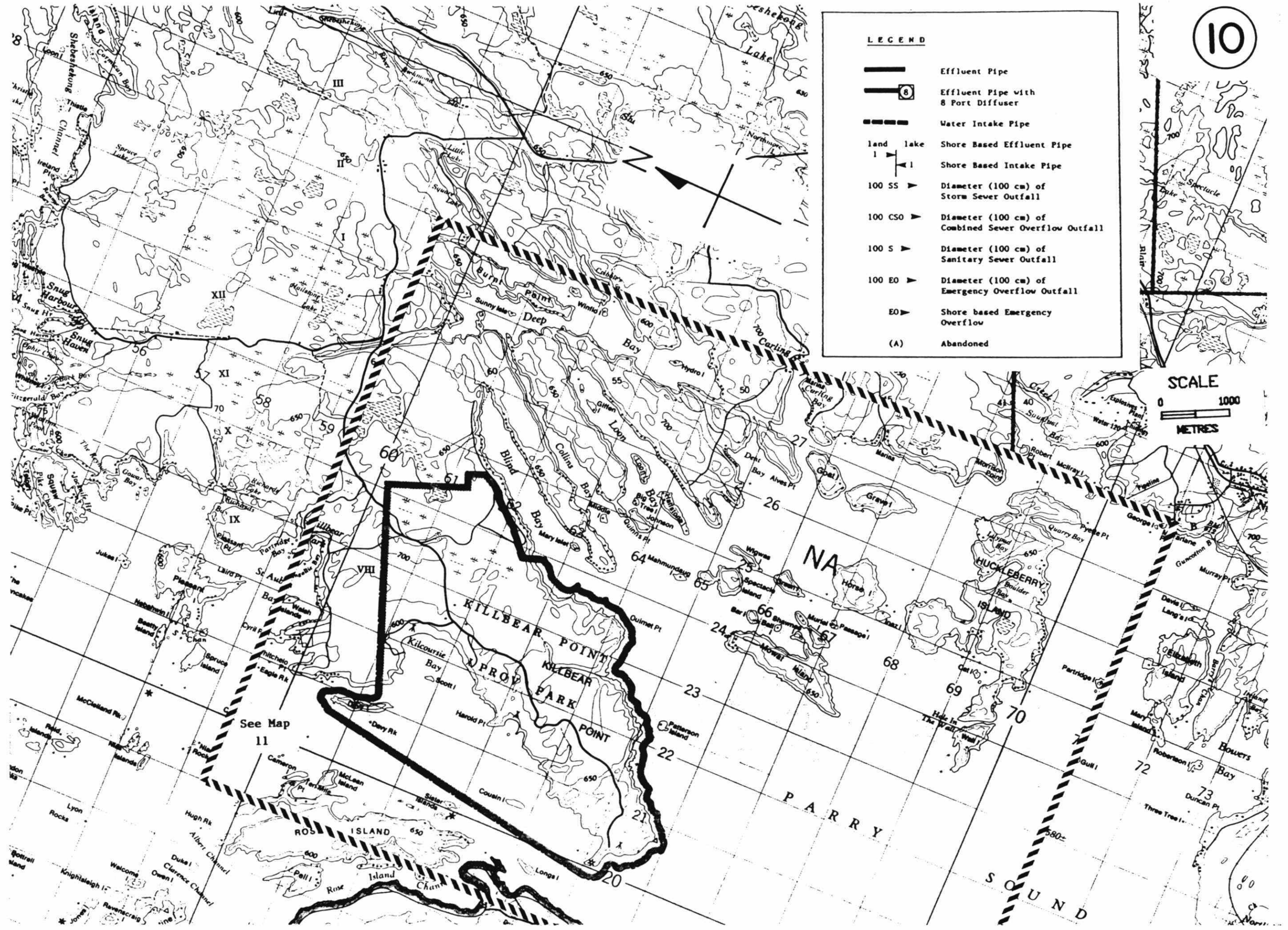
LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- Diameter (100 cm) of Storm Sever Outfall
- Diameter (100 cm) of Combined Sever Overflow Outfall
- Diameter (100 cm) of Sanitary Sever Outfall
- Diameter (100 cm) of Emergency Overflow Outfall
- Shore based Emergency Overflow
- Abandoned

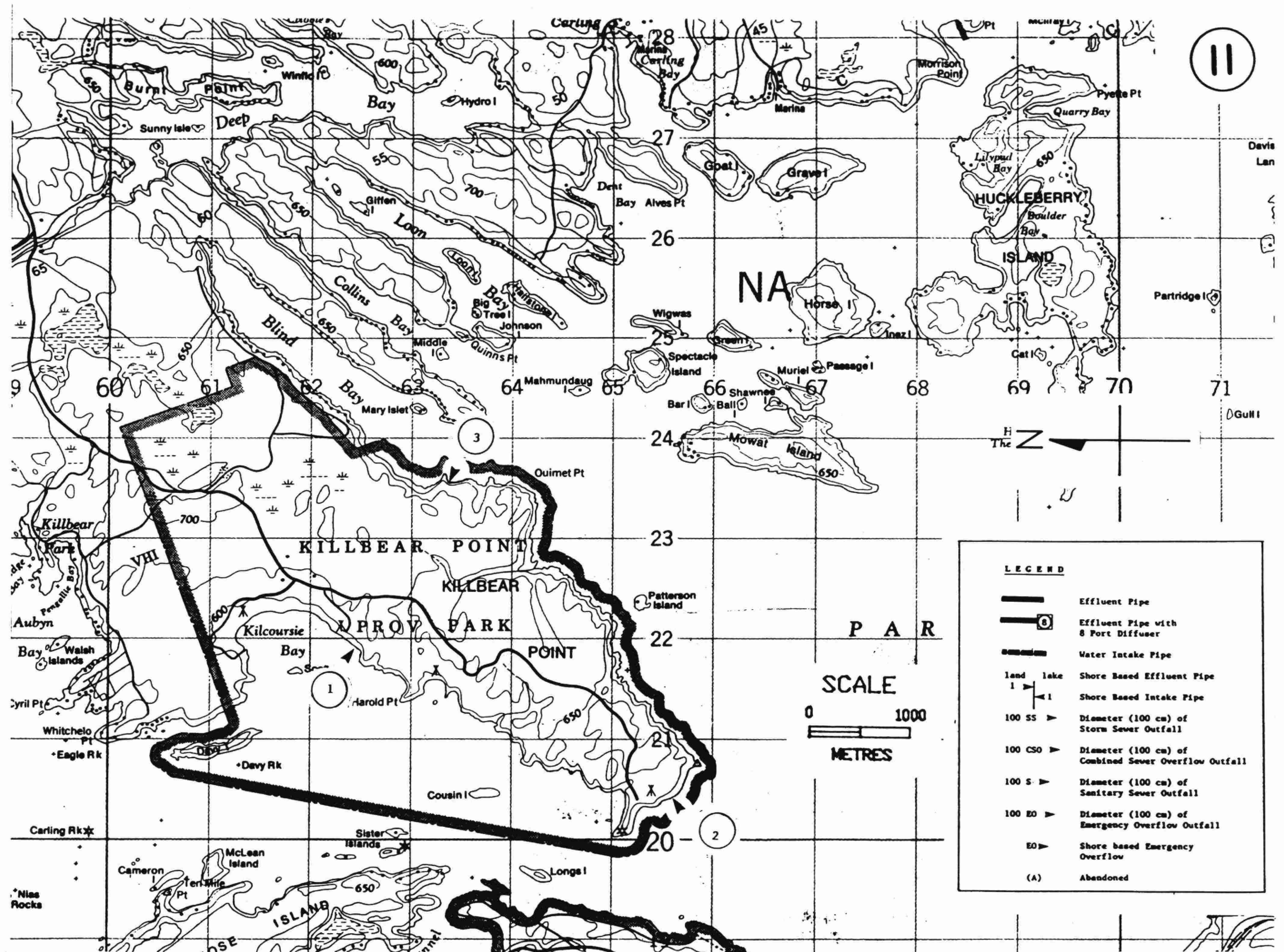


Name	TWP of Assignack WPCP	TWP of Assignack WTP				
Intake/Outfall	Outfall	Intake				
UNIS/INIS No.	1100014088	210001013				
Structure No.	1	2				
Map Number	8B	8B				
Operating Authority	MOE	MUN				
Location	Manitowaning	Manitowaning				
Supplier/Receiver	Manitowaning Bay	Manitowaning Bay				
Point of Discharge	Shore					
Terminal Basin	Lake Huron	Lake Huron				
Activity	Municipal Sewage Treatment	Municipal Water Treatment				
Process Type	Secondary Treatment	Chemical Treatment				
Supply/Discharge Type	Batch	Continuous				
Treatment Type	Conventional Lagoon	Chlorination				
	Settling for six months					
Comments	Seasonal Discharge twice a year Fall, Spring					
Design Flow (1000m3/day)	0.25	0.39				
Mean Annual Flow (1000m3/day)	0.26	0.23				
Pipe length from shore (m)	65.00	80.00				
Pipe Diameter (cm)	30.00	30.00				
Water Depth at end of pipe (m)	5.40	10.00				
Water depth above end of pipe (m)	5.35	8.50				
Diffuser	YES					
Number of ports	19					

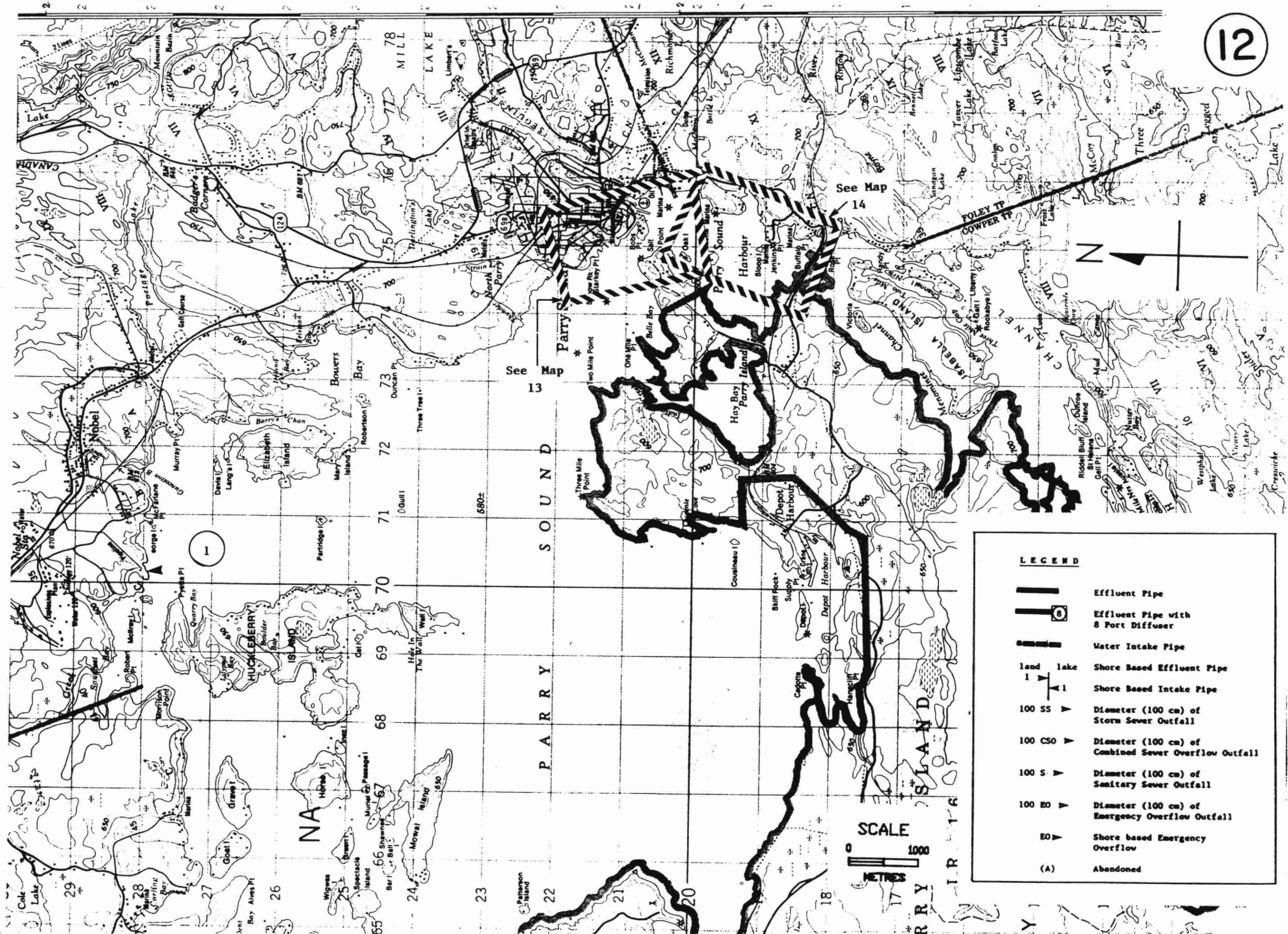




Name	Kilbear Provincial Park	Kilbear Provincial Park	Kilbear Provincial Park				
Intake/Outfall	Intake	Intake	Intake				
UMIS/IMIS No.							
Structure No.	1	2	3				
Map Number	11	11	11				
Operating Authority	MNR	MNR	MNR				
Location	Parry Sound	Parry Sound	Parry Sound				
Supplier/Receiver	Georgian Bay	Georgian Bay	Blind Bay Georgian B.				
Point of Discharge							
Terminal Basin	Lake Huron	Lake Huron	Lake Huron				
Activity	Park Water Treatment	Park Water Treatment	Park Water Treatment				
Process Type							
Supply/Discharge Type	Seasonal	Seasonal	Seasonal				
Treatment Type	NA	Chlorination	Chlorination				
Comments	Kilcoursie Campground	Lighthouse Campground					
Design Flow (1000m3/day)	0.18	0.10	0.06				
Mean Annual Flow (1000m3/day)	NA	NA	NA				
Pipe length from shore (m)	91.44	54.86	22.86				
Pipe Diameter (cm)	15.00	10.00	5.10				
Water Depth at end of pipe (m)	6.09	2.13	3.04				
Water depth above end of pipe (m)	4.00		3.00				
Diffuser							
Number of ports							



Name	CIL /McDougall TWP						
Intake/Outfall	Intake						
UNIS/INIS No.	220003671						
Structure No.	1						
Map Number	12						
Operating Authority	IND/MUN						
Location	Nobel						
Supplier/Receiver	Georgian Bay						
Point of Discharge							
Terminal Basin	Lake Huron						
Activity	Municipal Water Treatment						
Process Type	Chemical Treatment						
Supply/Discharge Type	Continuous						
Treatment Type	Chlorination						
Comments	CIL industrial uses of water phased out 1986 Two intake ports						
Design Flow (1000m3/day)	4.50						
Mean Annual Flow (1000m3/day)	107.00						
Pipe length from shore (m)	107.00						
Pipe Diameter (cm)	76.00						
Water Depth at end of pipe (m)	10.60						
Water depth above end of pipe (m)	9.14						
Diffuser							
Number of ports							

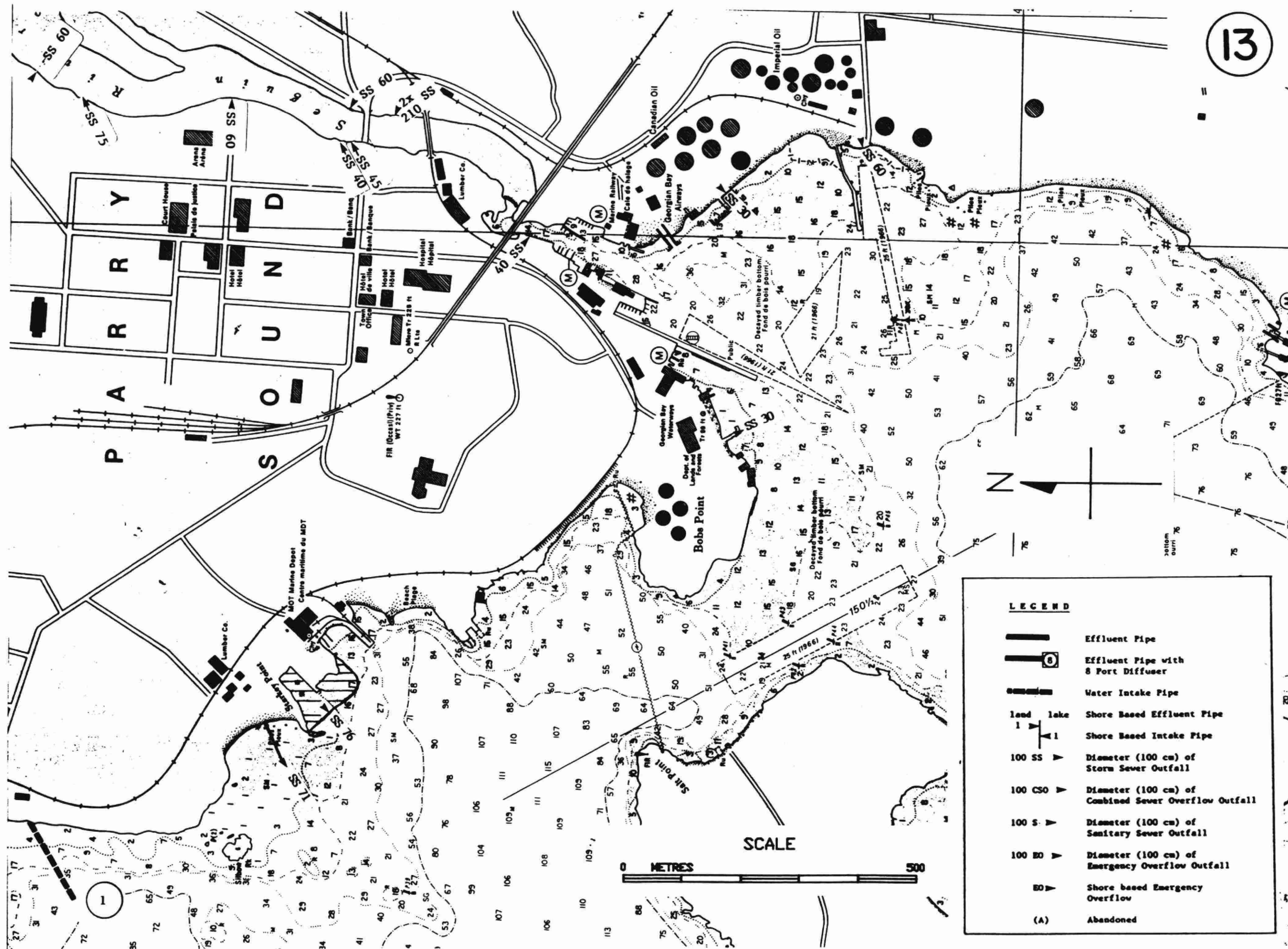


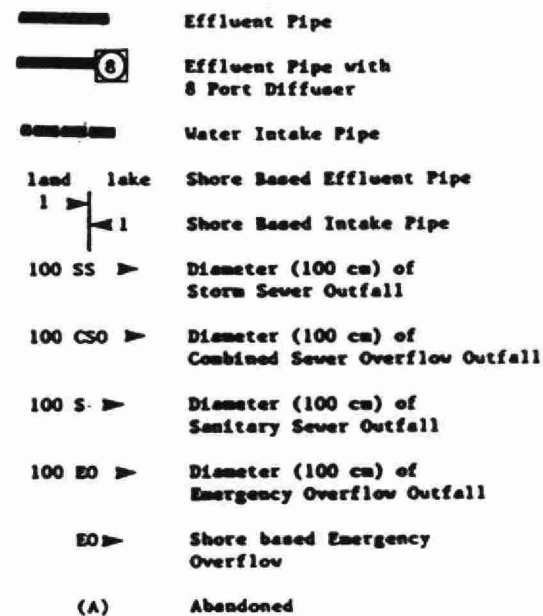
LEGEND

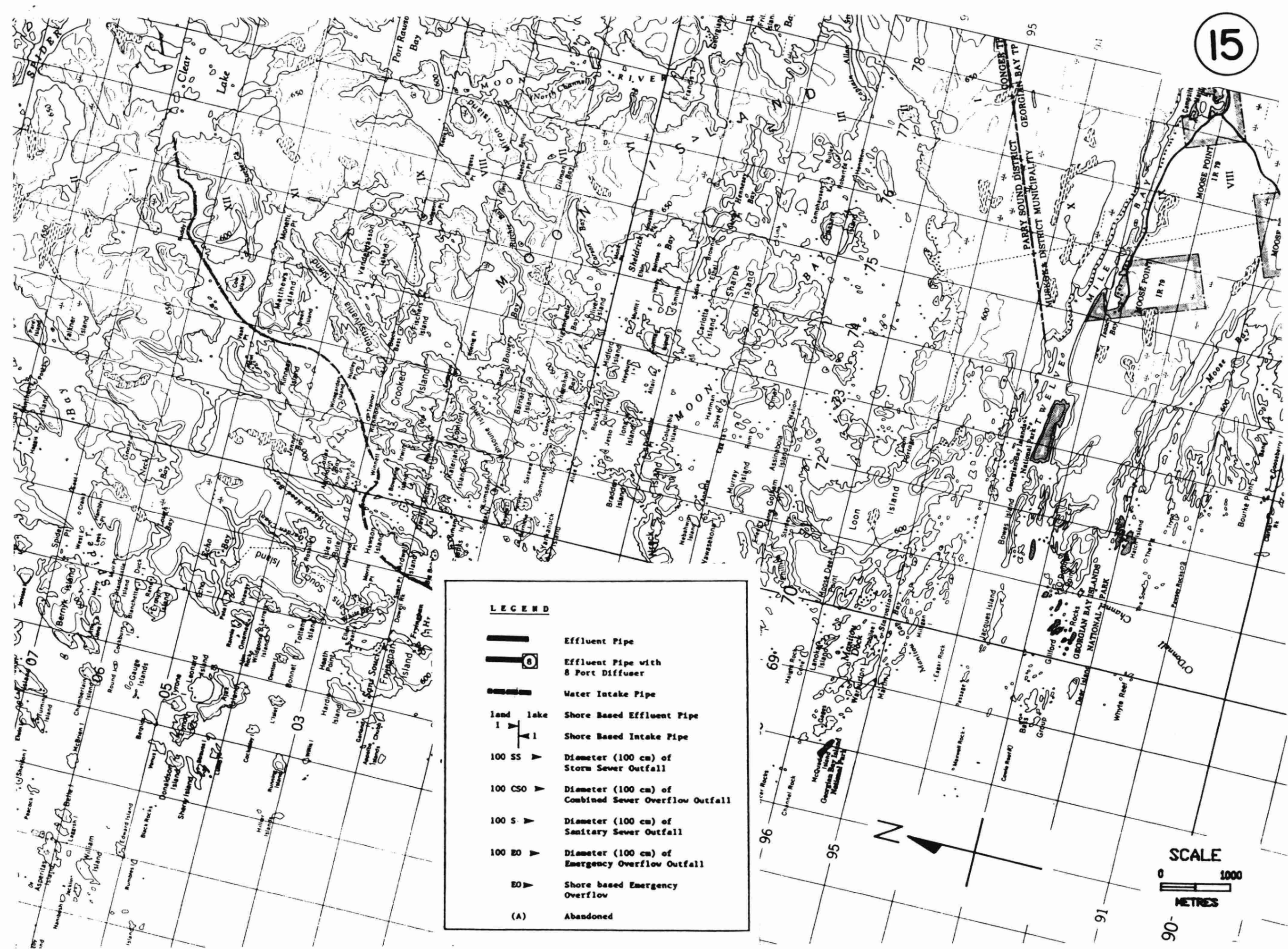
	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS >	Diameter (100 cm) of Storm Sewer Outfall
100 CSO >	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S >	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO >	Diameter (100 cm) of Emergency Overflow Outfall
EO >	Shore based Emergency Overflow
(A)	Abandoned

SCALE
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Name	Parry Sound WTP					
Intake/Outfall	Intake					
UMIS/INIS No.	220000585					
Structure No.	1					
Map Number	13					
Operating Authority	MUN PUC					
Location	Parry Sound					
Supplier/Receiver	Georgian Bay					
Point of Discharge						
Terminal Basin	Lake Huron					
Activity	Municipal Water Treatment					
Process Type	Chemical Treatment					
Supply/Discharge Type	Batch					
Treatment Type	Chlorination					
	Fluoridation					
Comments						
Design Flow (1000m3/day)	14.40					
Mean Annual Flow (1000m3/day)	2.76					
Pipe length from shore (m)	152.40					
Pipe Diameter (cm)	61.00					
Water Depth at end of pipe (m)	18.28					
Water depth above end of pipe (m)	NA					
Diffuser						
Number of ports						

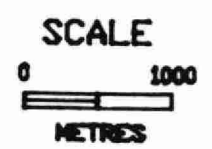


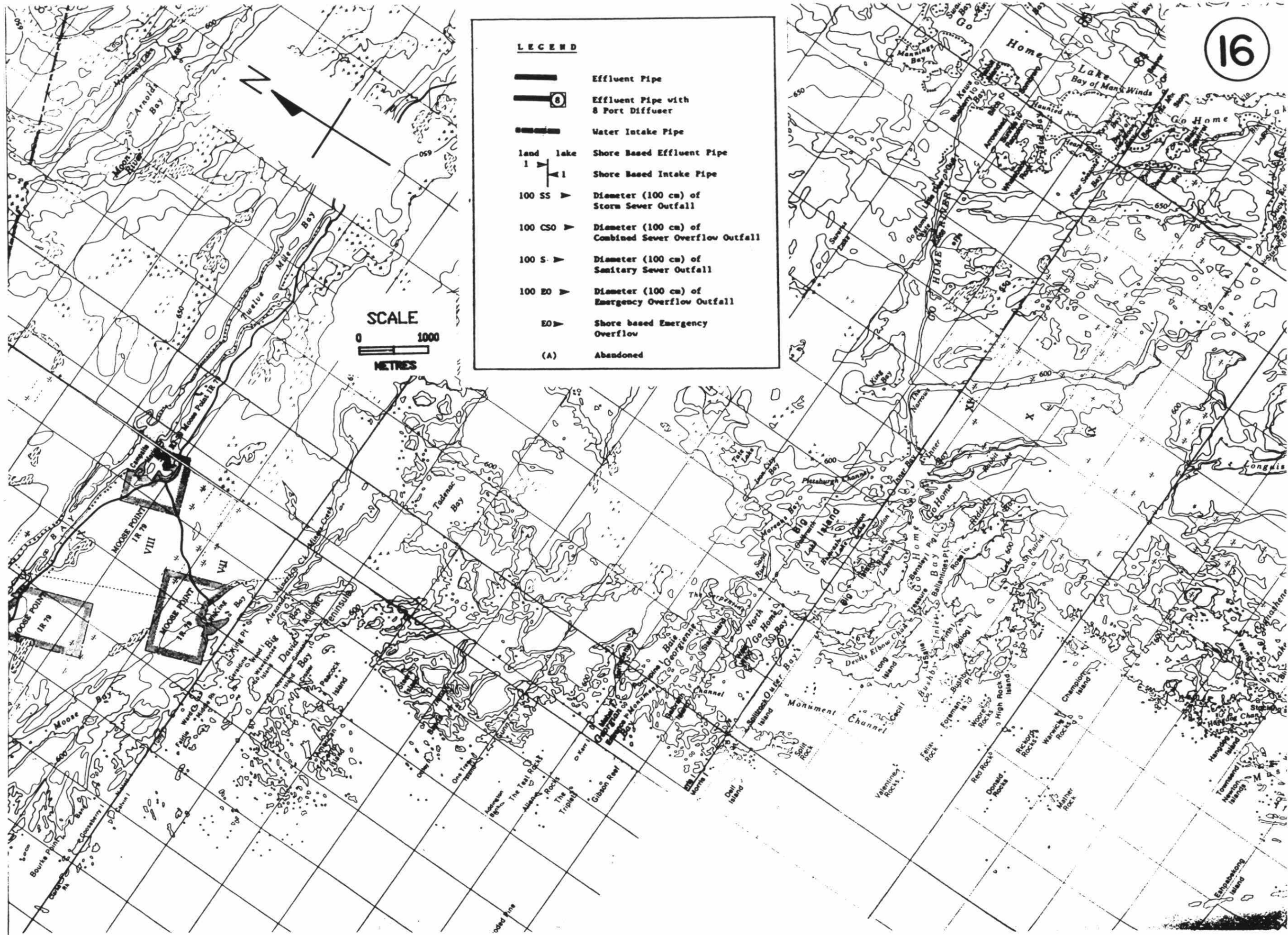


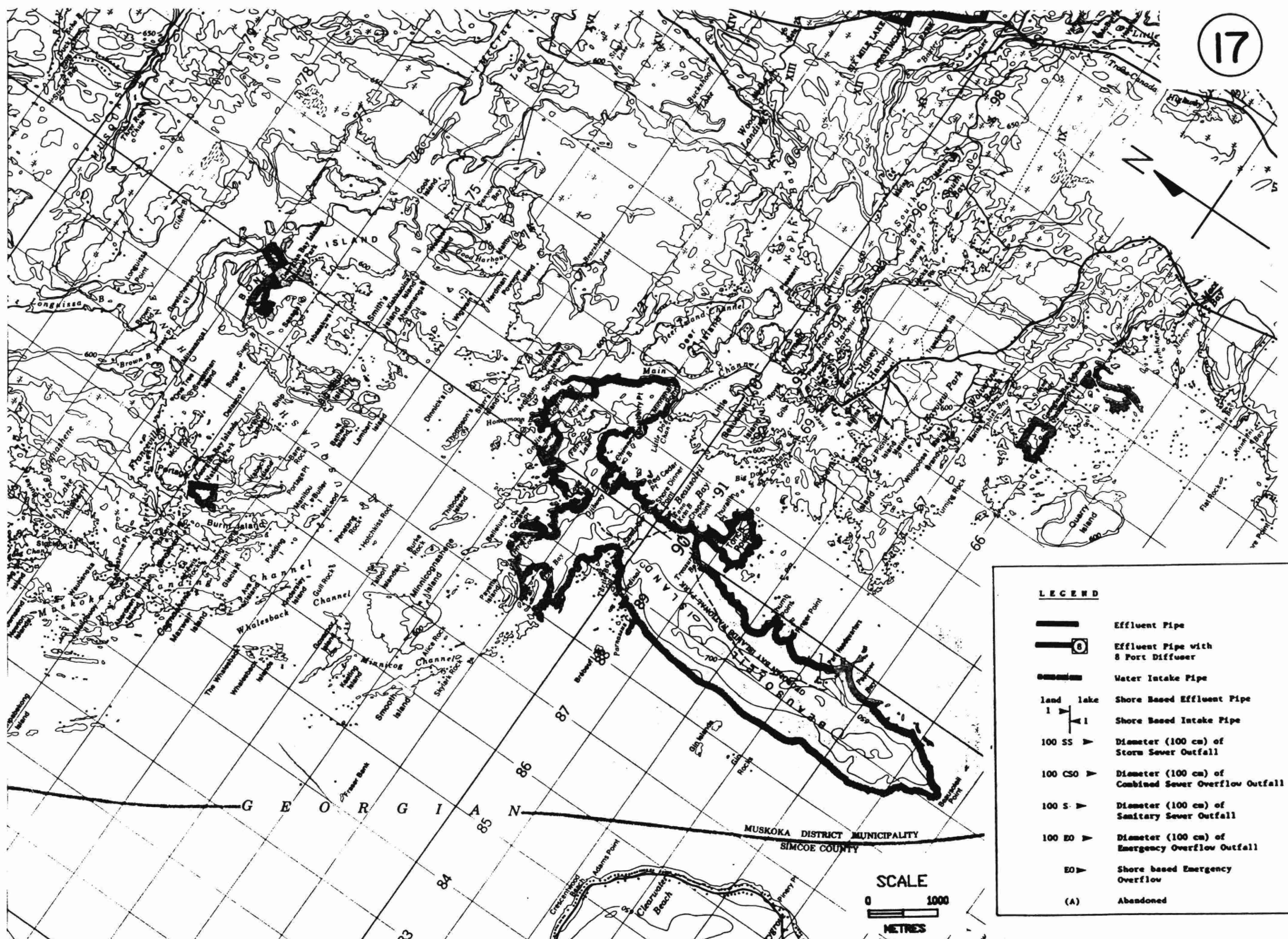


LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS > Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S > Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO > Diameter (100 cm) of Emergency Overflow Outfall
- EO > Shore based Emergency Overflow
- (A) Abandoned

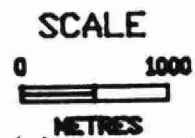




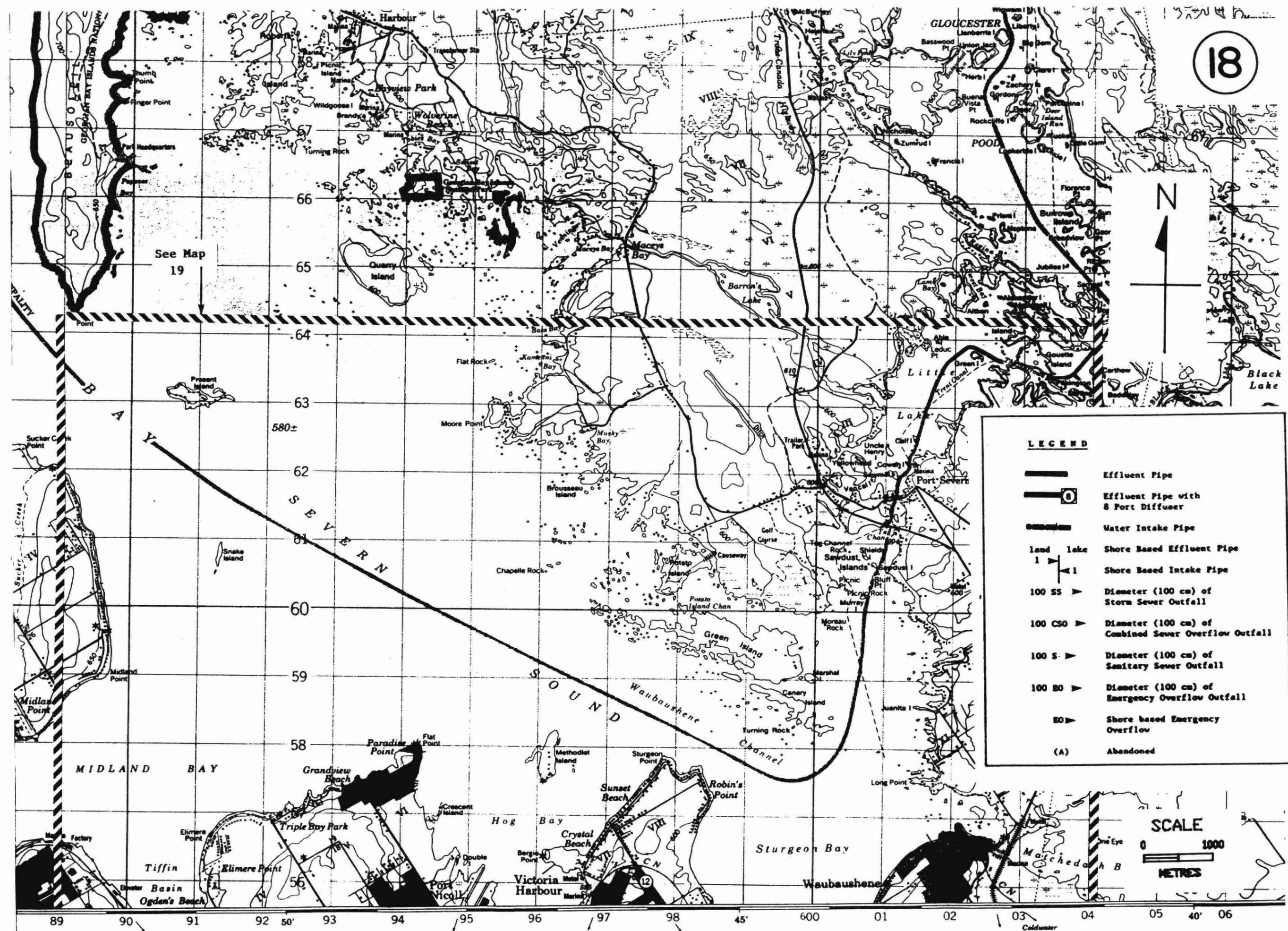


LEGEND

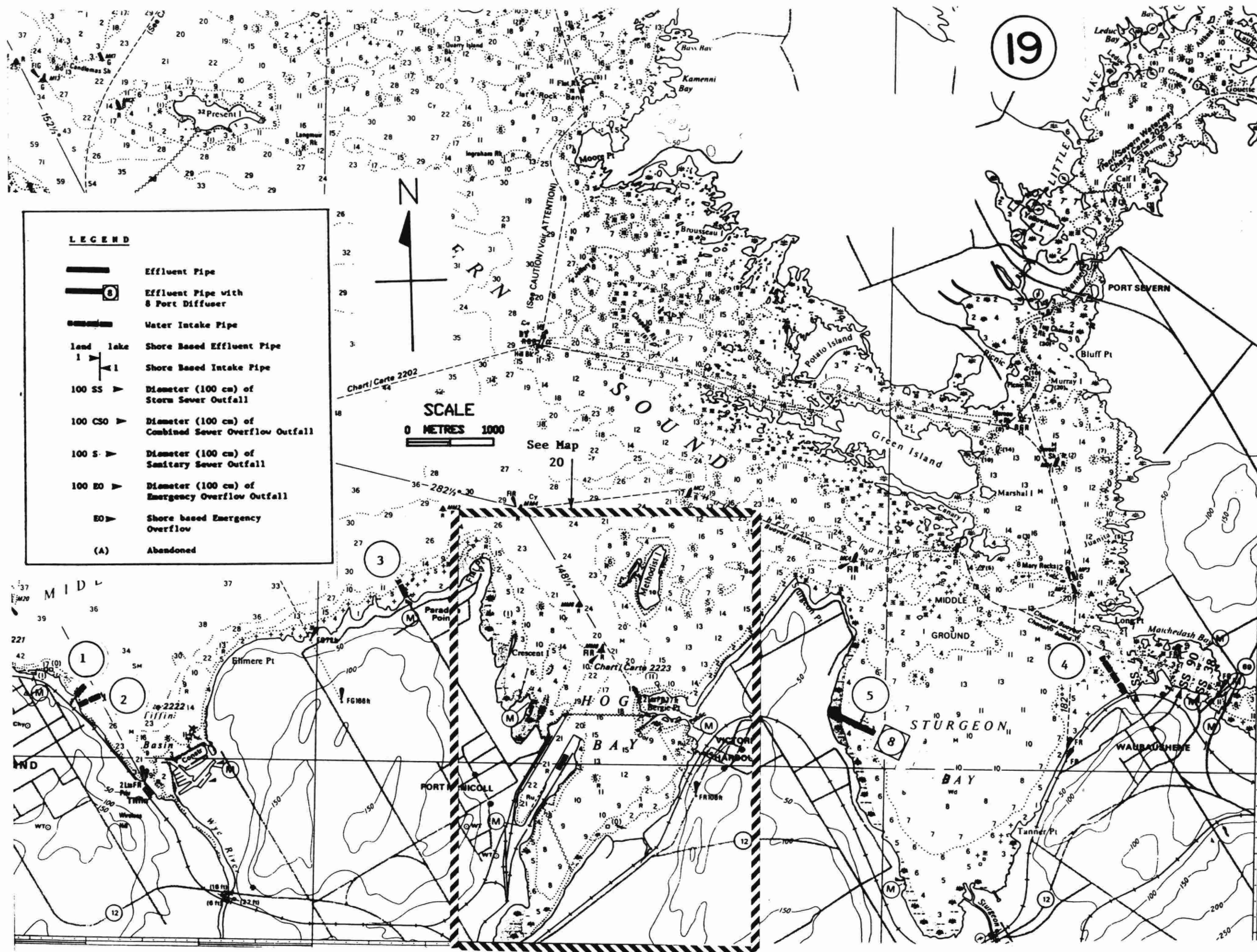
	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS >	Diameter (100 cm) of Storm Sewer Outfall
100 CSO >	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S >	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO >	Diameter (100 cm) of Emergency Overflow Outfall
EO >	Shore based Emergency Overflow
(A)	Abandoned



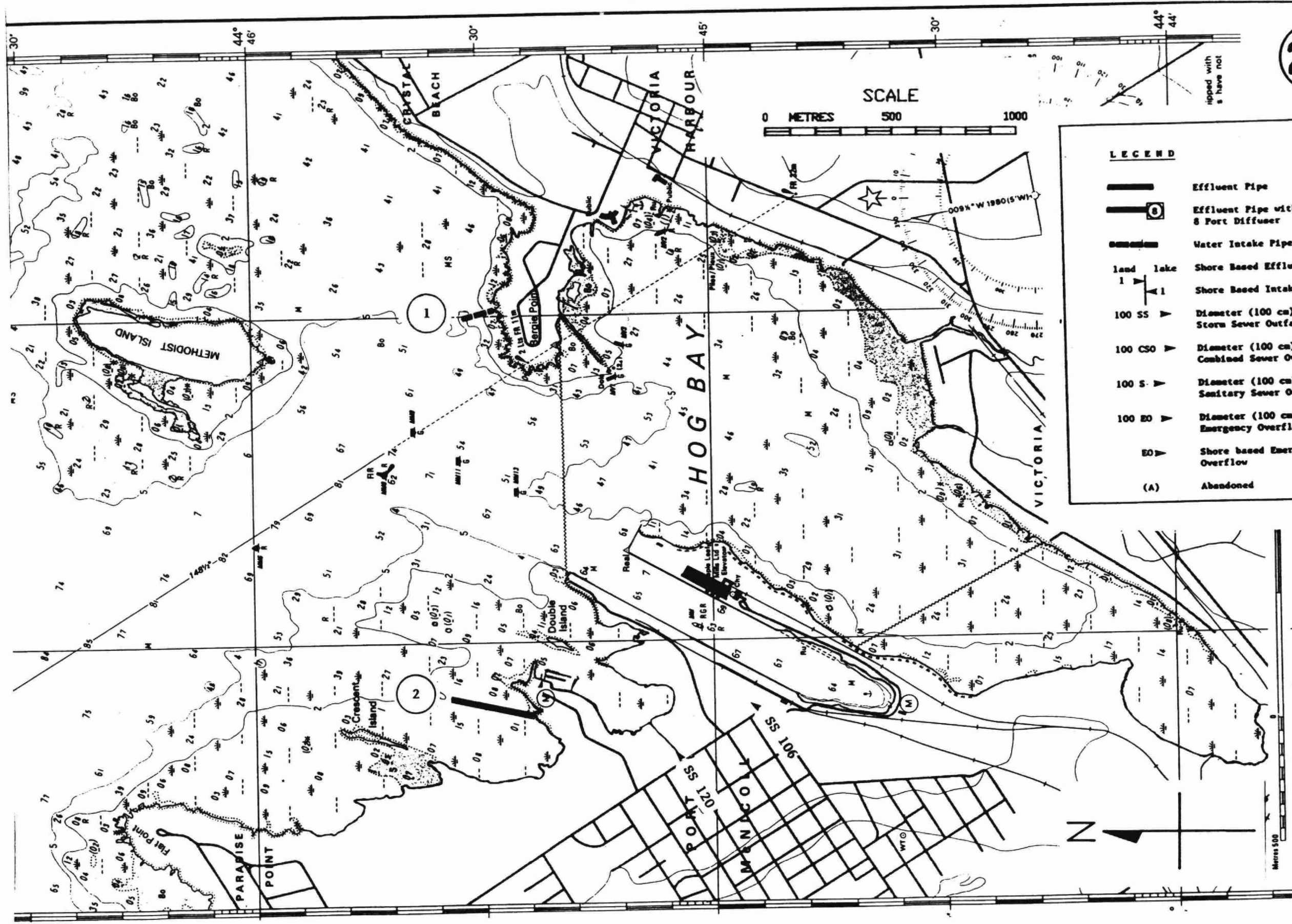
MUSKOKA DISTRICT MUNICIPALITY
SIMCOE COUNTY



Name	Mitsubishi Electronics WPCP	Mitsubishi Electronics WTP	Port McNicoll WTP	Waubaushene WTP	Victoria Harbour WPCP		
Intake/Outfall	Outfall	Intake	Intake	Intake	Outfall		
UMIS/IMIS No.	0001880004	0001880004	220001094	NA	210001013		
Structure No.	1	2	3	4	5		
Map Number	19	19	19	19	19		
Operating Authority	IND	IND	MUN	MUN POC	MUN		
Location	Midland	Midland	Port McNicoll	Waubaushene	Victoria Harbour		
Supplier/Receiver	Midland Bay	Midland Bay	Georgian Bay	Georgian Bay	Sturgen Bay		
Point of Discharge	Embayment				Embayment		
Terminal Basin	Lake Huron	Lake Huron	Lake Huron	Lake Huron	Lake Huron		
Activity	Electronic Components Manufacturing	Electronic Components Manufacturing	Municipal Water Treatment	Municipal Water Treatment	Municipal Sewage Treatment		
Process Type	Colour TV picture Tube Manufacturing	Colour TV picture Tube Manufacturing	Physical and Chemical Treatment	Physical and Chemical Treatment	Secondary Treatment		
Supply/Discharge Type	Continuous	Continuous	Continuous	Continuous	Continuous		
Treatment Type	Heavy Metal Removal Fluoride Removal Clarifier PH adjustment Lagoon Settlement Final Filter	Filtered & Chlorination	Screen & Chlorination	Filtration Bed Chlorination	Extended Aeration		
Comments							
Design Flow (1000m3/day)	4.90	5.41	0.90	1.20	2.36		
Mean Annual Flow (1000m3/day)	0.98	2.99	0.90	0.50	0.84		
Pipe length from shore (m)	159.00	242.00	274.00	490.00	588.00		
Pipe Diameter (cm)	122.00	45.70	20.00	20.00	56.00		
Water Depth at end of pipe (m)	2.70	13.70	4.50	2.00	3.40		
Water depth above end of pipe (m)	1.70	10.90	4.50	2.00	2.60		
Diffuser	NO				YES		
Number of ports					8		

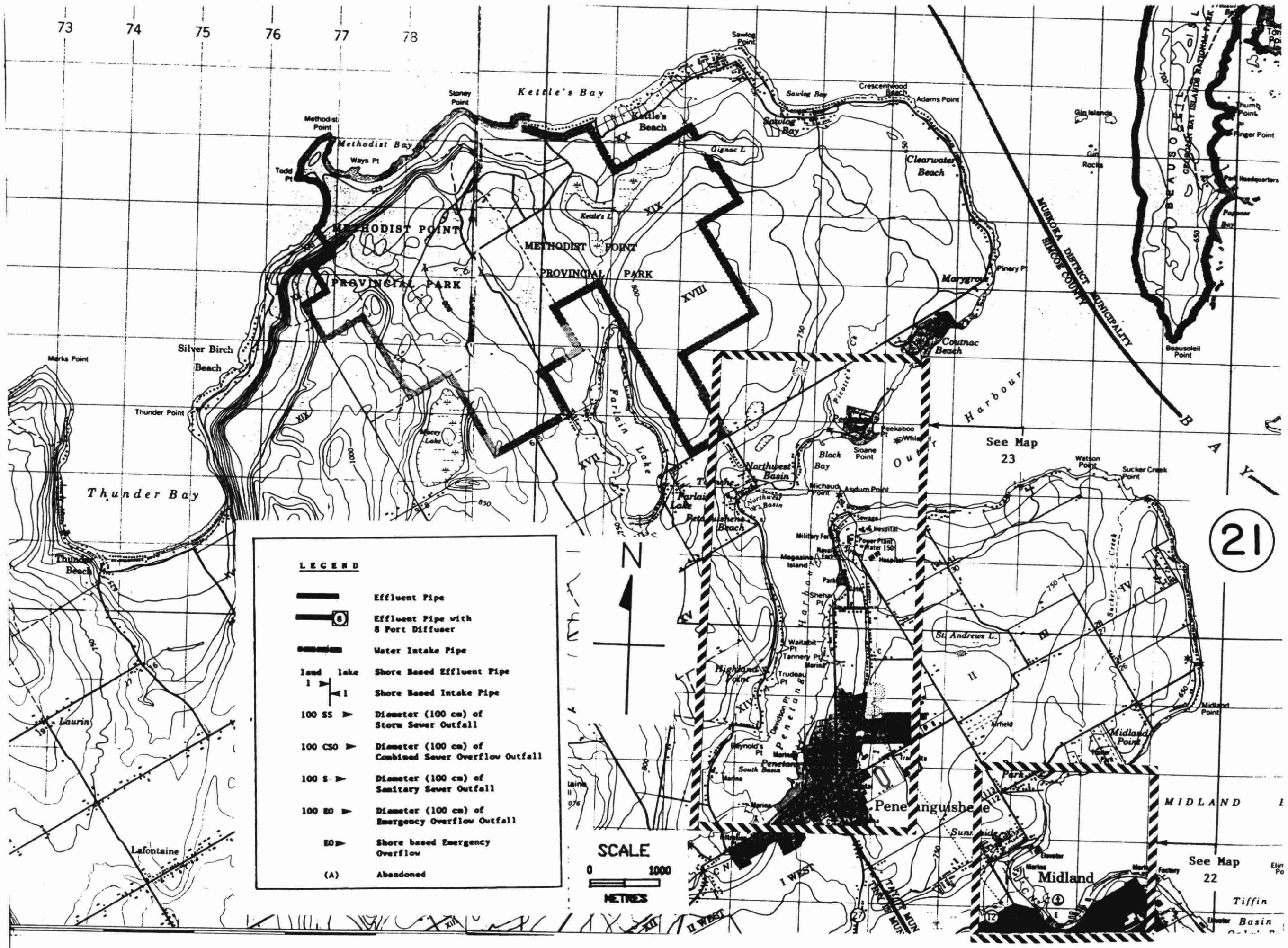


Name	Victoria Harbour WTP	Port McNicoll STP					
Intake/Outfall	Intake	Outfall					
UMIS/IMIS No.	220002681	110001417					
Structure No.	1	2					
Map Number	20	20					
Operating Authority	MOE	MOE					
Location	Victoria Harbour	Port McNicoll					
Supplier/Receiver	Georgian Bay	Georgian Bay					
Point of Discharge		Embayment					
Terminal Basin	Lake Huron	Lake Huron					
Activity	Municipal Water Treatment	Municipal Sewage Treatment					
Process Type	Physical and Chemical Treatment	Secondary Treatment					
Supply/Discharge Type	Continuous	Continuous					
Treatment Type	Filtration, Coagulation Chlorination	Contact Stabilization P Removal-Continuous					
Comments							
Design Flow (1000m3/day)	3.97	1.05					
Mean Annual Flow (1000m3/day)	0.88	1.17					
Pipe length from shore (m)	134.00	325.00					
Pipe Diameter (cm)	40.00	NA					
Water Depth at end of pipe (m)	8.20	NA					
Water depth above end of pipe (m)	5.20	NA					
Diffuser		NO					
Number of ports							

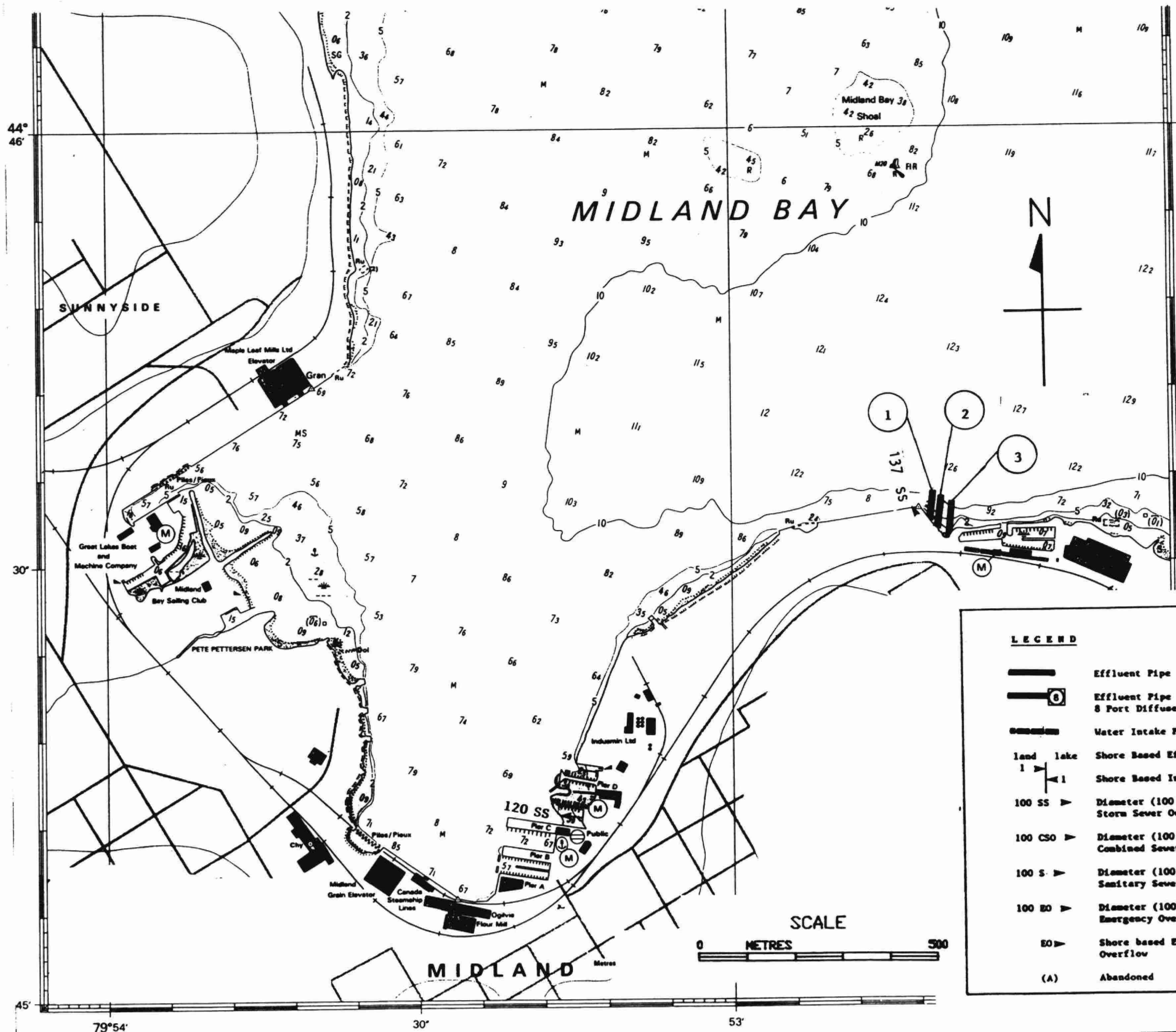


LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- Diameter (100 cm) of Storm Sewer Outfall
- Diameter (100 cm) of Combined Sewer Overflow Outfall
- Diameter (100 cm) of Sanitary Sewer Outfall
- Diameter (100 cm) of Emergency Overflow Outfall
- Shore based Emergency Overflow
- Abandoned



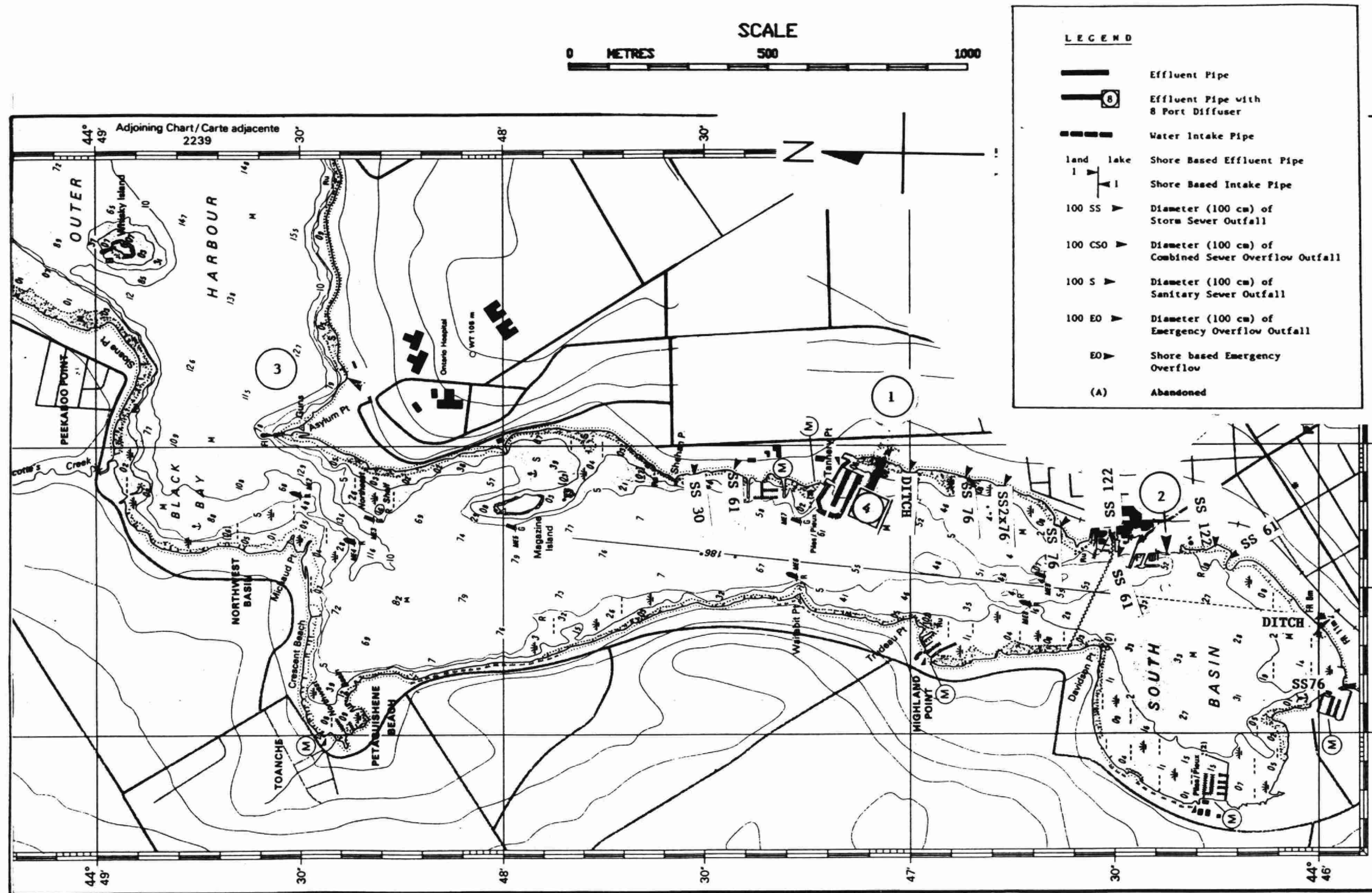
Name	Midland WPCP	Midland WPCP	Midland WPCP				
Intake/Outfall	Outfall #1	Outfall #2	Outfall #3				
UMIS/IMIS No.	110000463	110000463	110000463				
Structure No.	1	2	3				
Map Number	22	22	22				
Operating Authority	MUN	MUN	MUN				
Location	Midland	Midland	Midland				
Supplier/Receiver	Georgian Bay	Georgian Bay	Georgian Bay				
Point of Discharge	Embayment	Embayment	Embayment				
Terminal Basin	Lake Huron	Lake Huron	Lake Huron				
Activity	Municipal Sewage Treatment	Municipal Sewage Treatment	Municipal Sewage Treatment				
Process Type	Secondary Treatment	Secondary Treatment	Secondary Treatment				
Supply/Discharge Type	Continuous	Continuous	Continuous				
Treatment Type	Conventional Activated Sludge P Removal-Continuous	Conventional Activated Sludge P Removal-Continuous	Conventional Activated Sludge P Removal-Continuous				
Comments		Emergency Overflow Outfall	Emergency Overflow Outfall				
Design Flow (1000m3/day)	13.86	13.86	13.86				
Mean Annual Flow (1000m3/day)	9.24	9.24	9.24				
Pipe length from shore (m)	70.00	70.00	70.00				
Pipe Diameter (cm)	90.00	90.00	60.00				
Water Depth at end of pipe (m)	8.00	8.00	8.00				
Water depth above end of pipe (m)	7.00	7.00	7.00				
Diffuser	NO	NO	NO				
Number of ports							

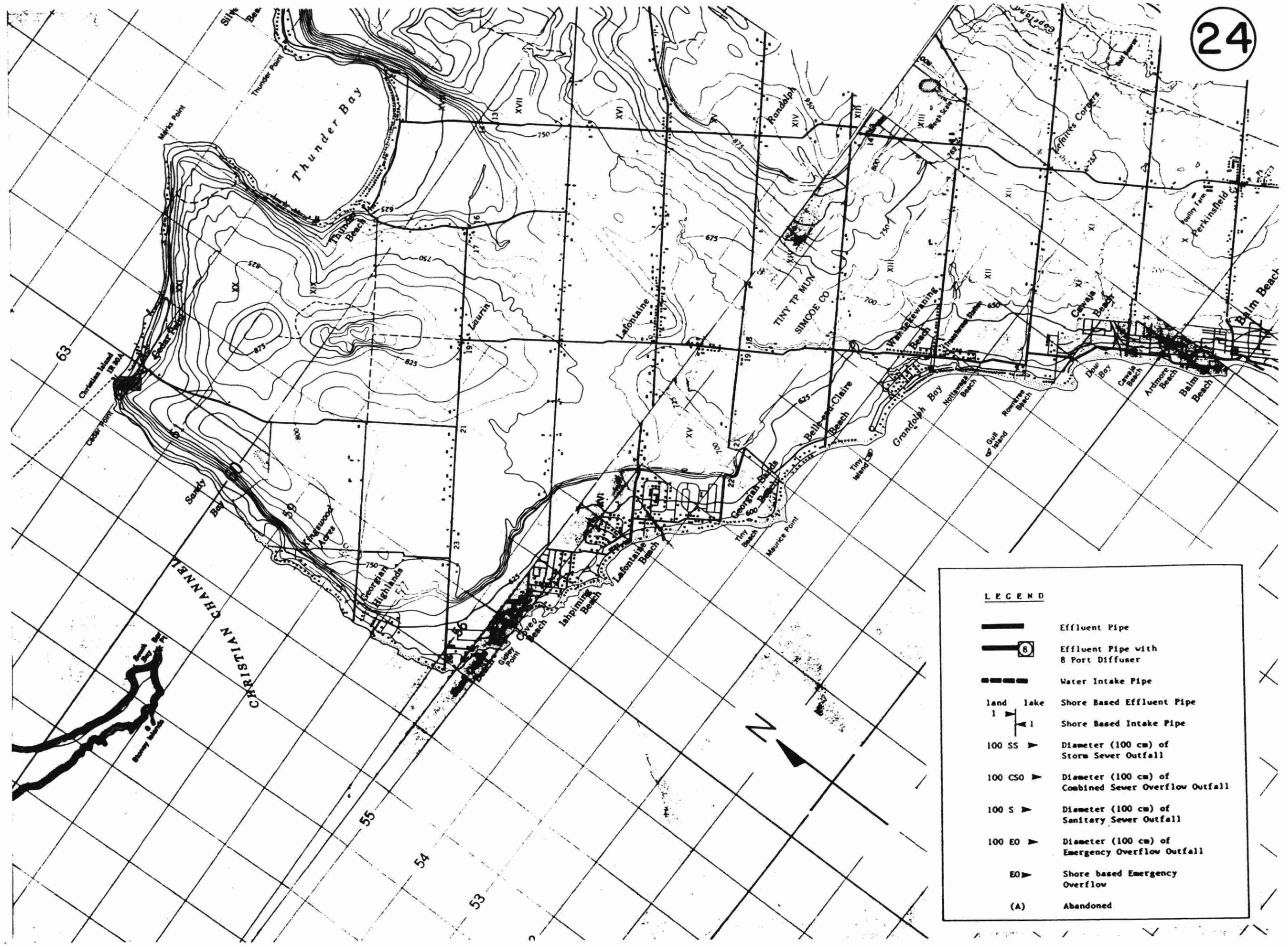


LEGEND

-  Effluent Pipe
-  Effluent Pipe with 8 Port Diffuser
-  Water Intake Pipe
-  Shore Based Effluent Pipe
-  Shore Based Intake Pipe
-  Diameter (100 cm) of Storm Sewer Outfall
-  Diameter (100 cm) of Combined Sewer Overflow Outfall
-  Diameter (100 cm) of Sanitary Sewer Outfall
-  Diameter (100 cm) of Emergency Overflow Outfall
-  Shore based Emergency Overflow
-  Abandoned

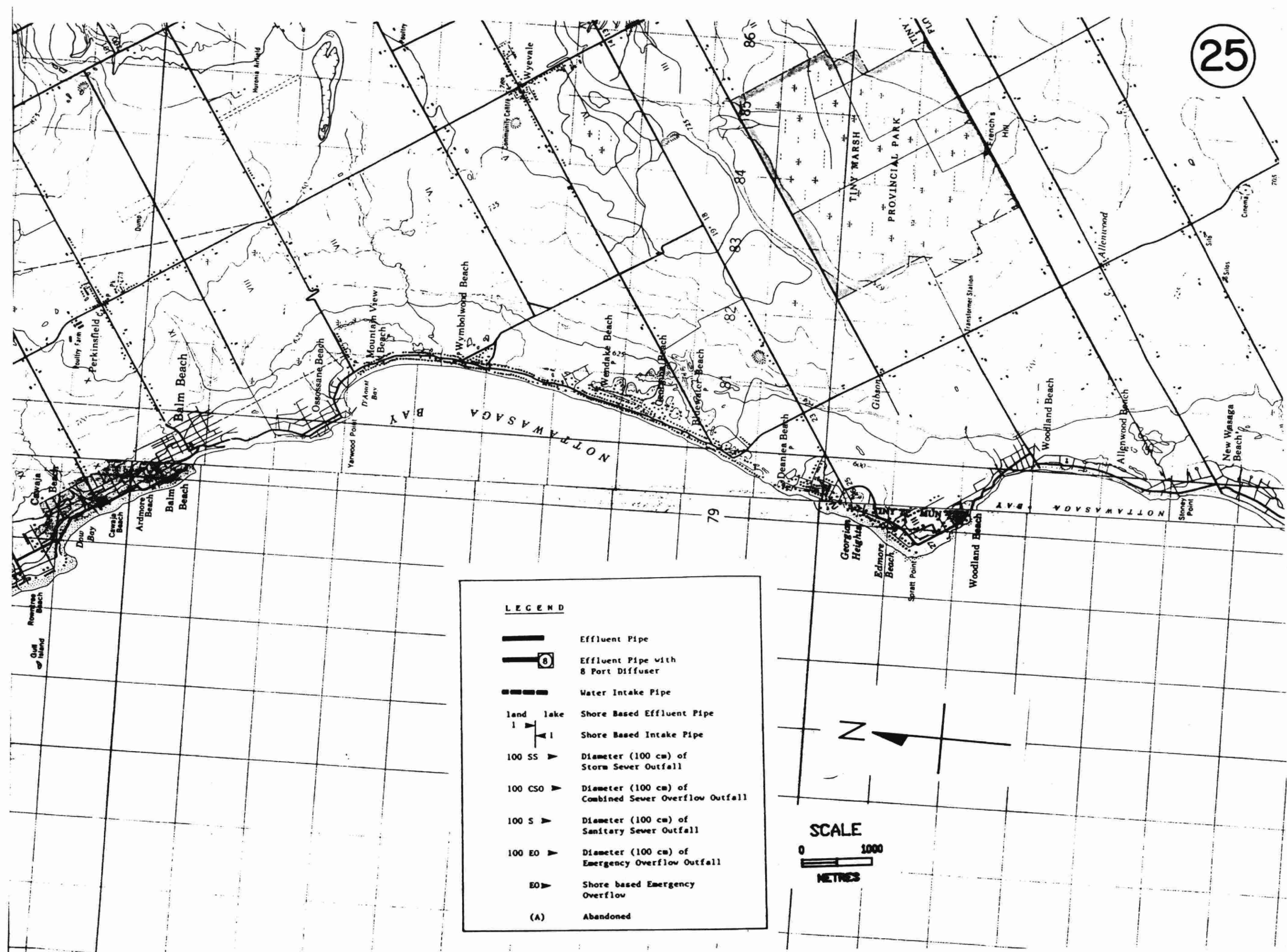
Name	Penetanguishene WPCP	Penetanguishene WPCP	Penetang. Hospital WPCP				
Intake/Outfall	Outfall #1	Outfall #2	Outfall				
UMIS/IMIS No.	120000541	120000541	NA				
Structure No.	1	2	3				
Map Number	23	23	23				
Operating Authority	MUN	MUN	MGS				
Location	Penetanguishene	Penetanguishene	Penetanguishene				
Supplier/Receiver	Penetang Harbour	Penetang Harbour	Outer Harbour				
Point of Discharge	Harbour	Harbour	Harbour				
Terminal Basin	Lake Huron	Lake Huron	Lake Huron				
Activity	Municipal Sewage Treatment	Municipal Sewage Treatment	Hospital Sewage Treatment				
Process Type	Secondary Treatment	Secondary Treatment	Secondary Treatment				
Supply/Discharge Type	Continuous	Continuous	Continuous				
Treatment Type	Contact Stabilization Extended Aeration P Removal-Continuous	Contact Stabilization Extended Aeration P Removal-Continuous	Coventional Activated Sludge P Removal-Continuous				
Comments	For St. Plant	Main St. Plant					
Design Flow (1000m3/day)	1.82	3.63	0.57				
Mean Annual Flow (1000m3/day)	0.68	3.65	0.39				
Pipe length from shore (m)	73.00	20.00	0.00				
Pipe Diameter (cm)	41.00	41.00	NA				
Water Depth at end of pipe (m)	4.00	3.00	NA				
Water depth above end of pipe (m)	4.00	3.00	NA				
Diffuser	YES	NO	NO				
Number of ports	4						





LEGEND

	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
land lake	Shore Based Effluent Pipe
1	Shore Based Intake Pipe
100 SS	Diameter (100 cm) of Storm Sewer Outfall
100 CSO	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO	Diameter (100 cm) of Emergency Overflow Outfall
EO	Shore based Emergency Overflow
(A)	Abandoned



LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS > Diameter (100 cm) of Storm Sever Outfall
- 100 CSO > Diameter (100 cm) of Combined Sever Overflow Outfall
- 100 S > Diameter (100 cm) of Sanitary Sever Outfall
- 100 EO > Diameter (100 cm) of Emergency Overflow Outfall
- EO > Shore based Emergency Overflow
- (A) Abandoned

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WASAGA BEACH PROVINCIAL PARK

WASAGA BEACH
PROVINCIAL
PARK

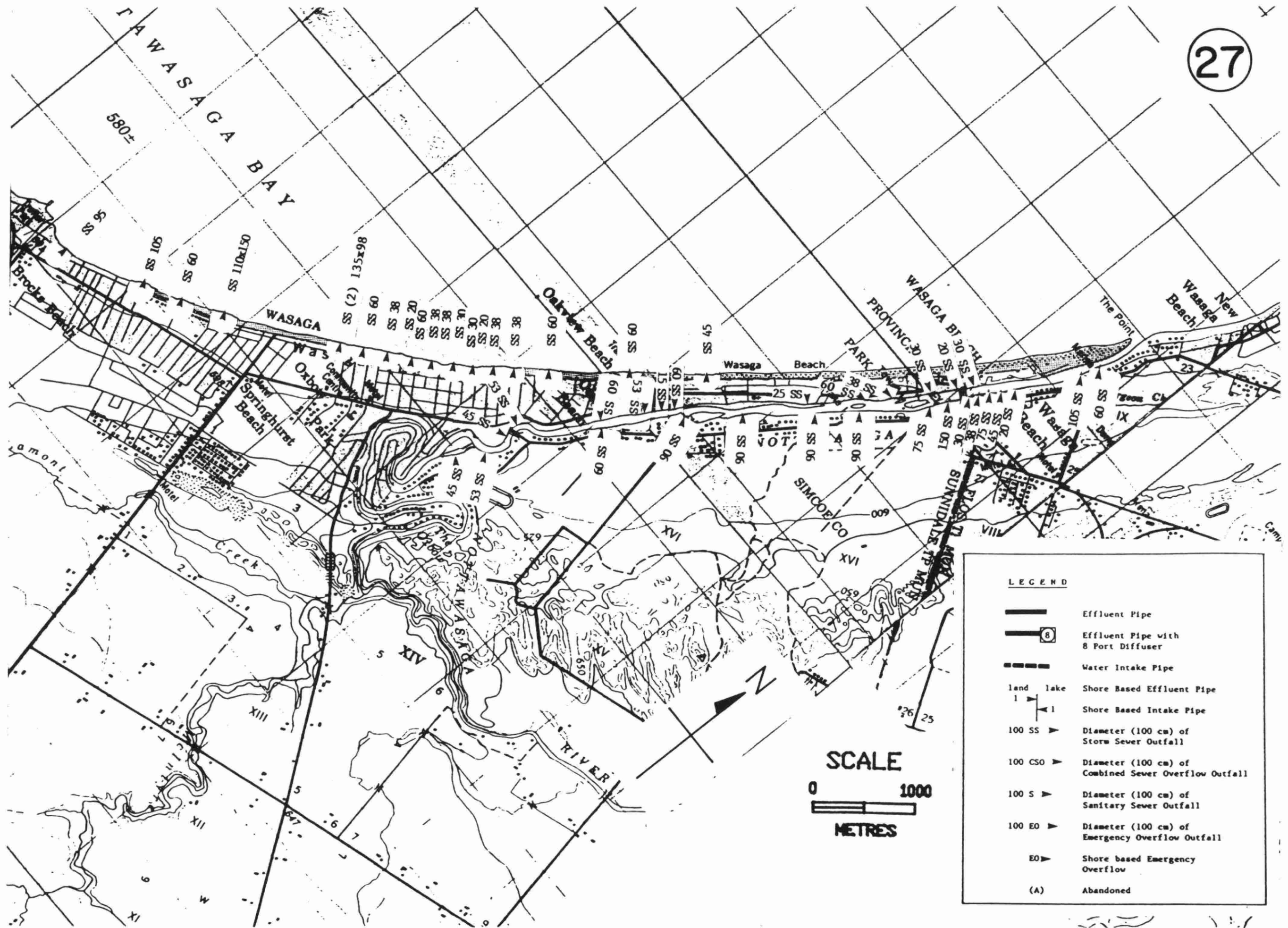
ASAGA

SCALE

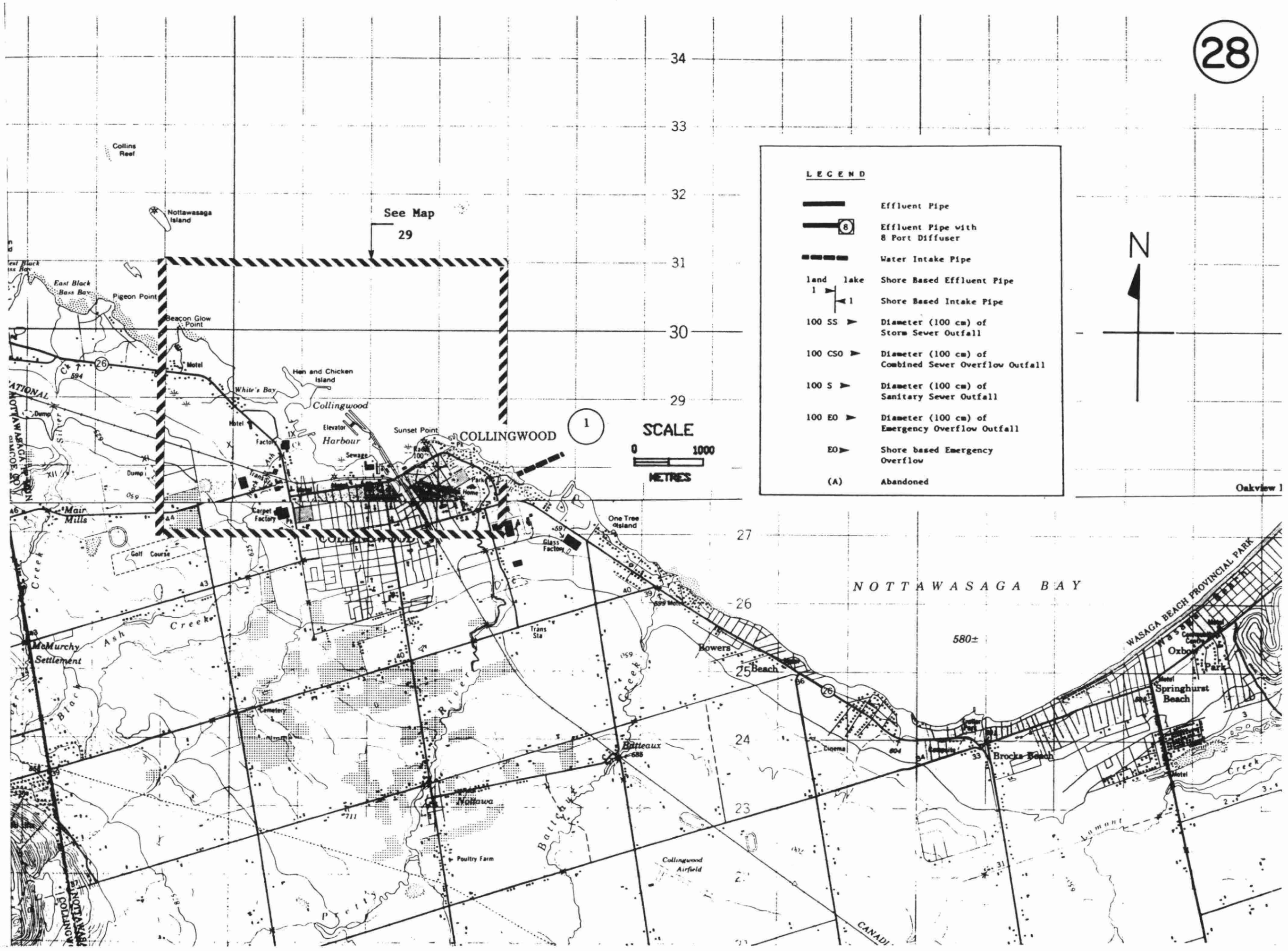
A horizontal scale bar with a double line at the left end labeled '0' and a single line at the right end labeled '1000'. Below the bar is the word 'METRES'. The bar is divided into two equal segments by a vertical line.

LEGEND

- | | |
|--|---|
|  | Effluent Pipe |
|  | Effluent Pipe with
8 Port Diffuser |
|  | Water Intake Pipe |
| land lake
1  1 | Shore Based Effluent Pipe |
|  | Shore Based Intake Pipe |
| 100 SS ➤ | Diameter (100 cm) of
Storm Sewer Outfall |
| 100 CSO ➤ | Diameter (100 cm) of
Combined Sewer Overflow Outfall |
| 100 S ➤ | Diameter (100 cm) of
Sanitary Sewer Outfall |
| 100 EO ➤ | Diameter (100 cm) of
Emergency Overflow Outfall |
| EO ➤ | Shore based Emergency
Overflow |
| (A) | Abandoned |

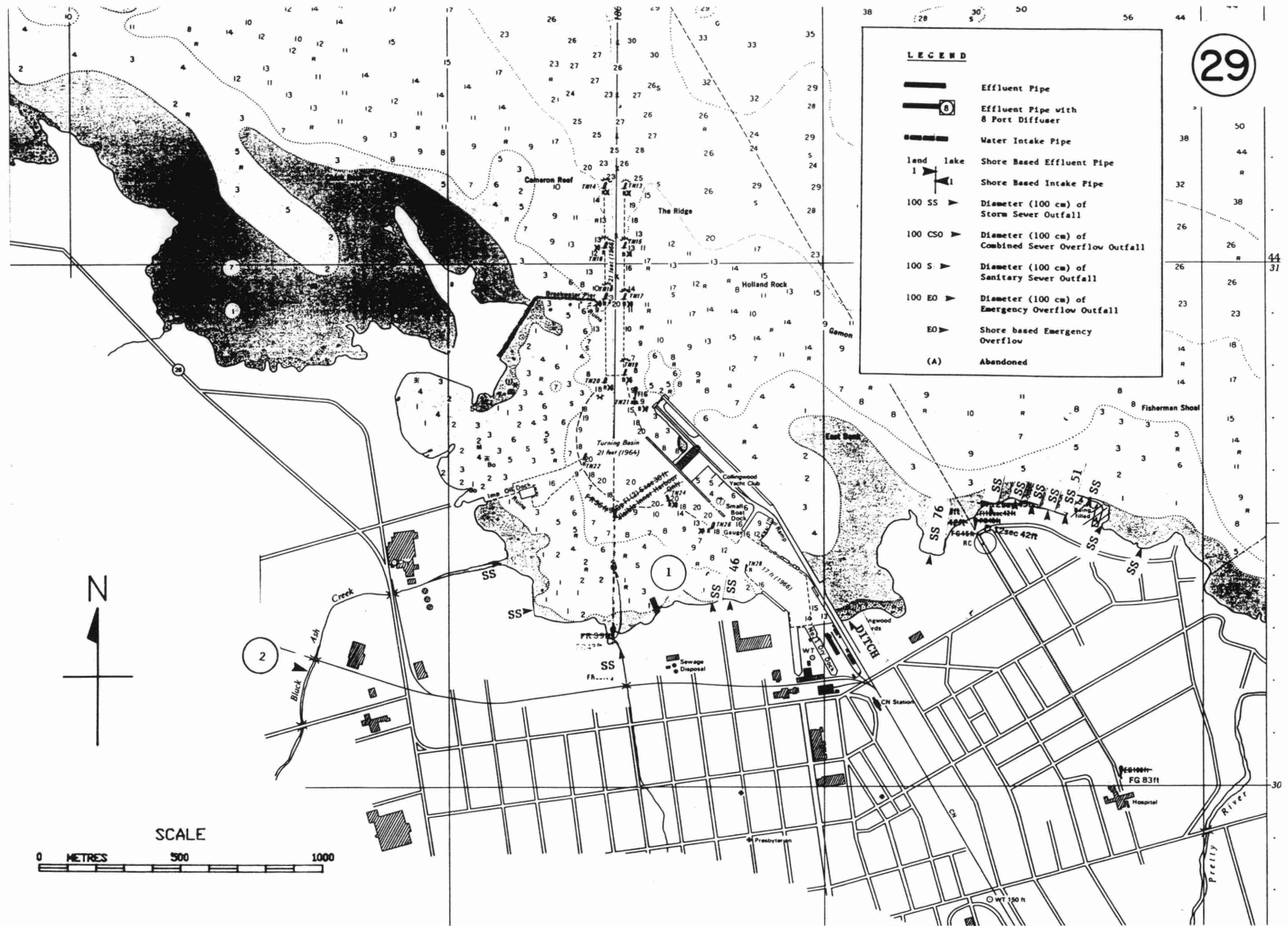


Name	Collingwood WTP						
Intake/Outfall	Intake						
UMIS/INIS No.	220001165.00						
Structure No.	1						
Map Number	28						
Operating Authority	MUN PUC						
Location	Collingwood						
Supplier/Receiver	Georgian Bay						
Point of Discharge							
Terminal Basin	Lake Huron						
Activity	Municipal Water Treatment						
Process Type	Chemical Treatment						
Supply/Discharge Type	Continuous						
Treatment Type	Chlorination						
Comments	Installation of Filtration system under consideration						
Design Flow (1000m3/day)	70.00						
Mean Annual Flow (1000m3/day)	18.55						
Pipe length from shore (m)	700.00						
Pipe Diameter (cm)	107.00						
Water Depth at end of pipe (m)	8.00						
Water depth above end of pipe (m)	5.60						
Diffuser							
Number of ports							

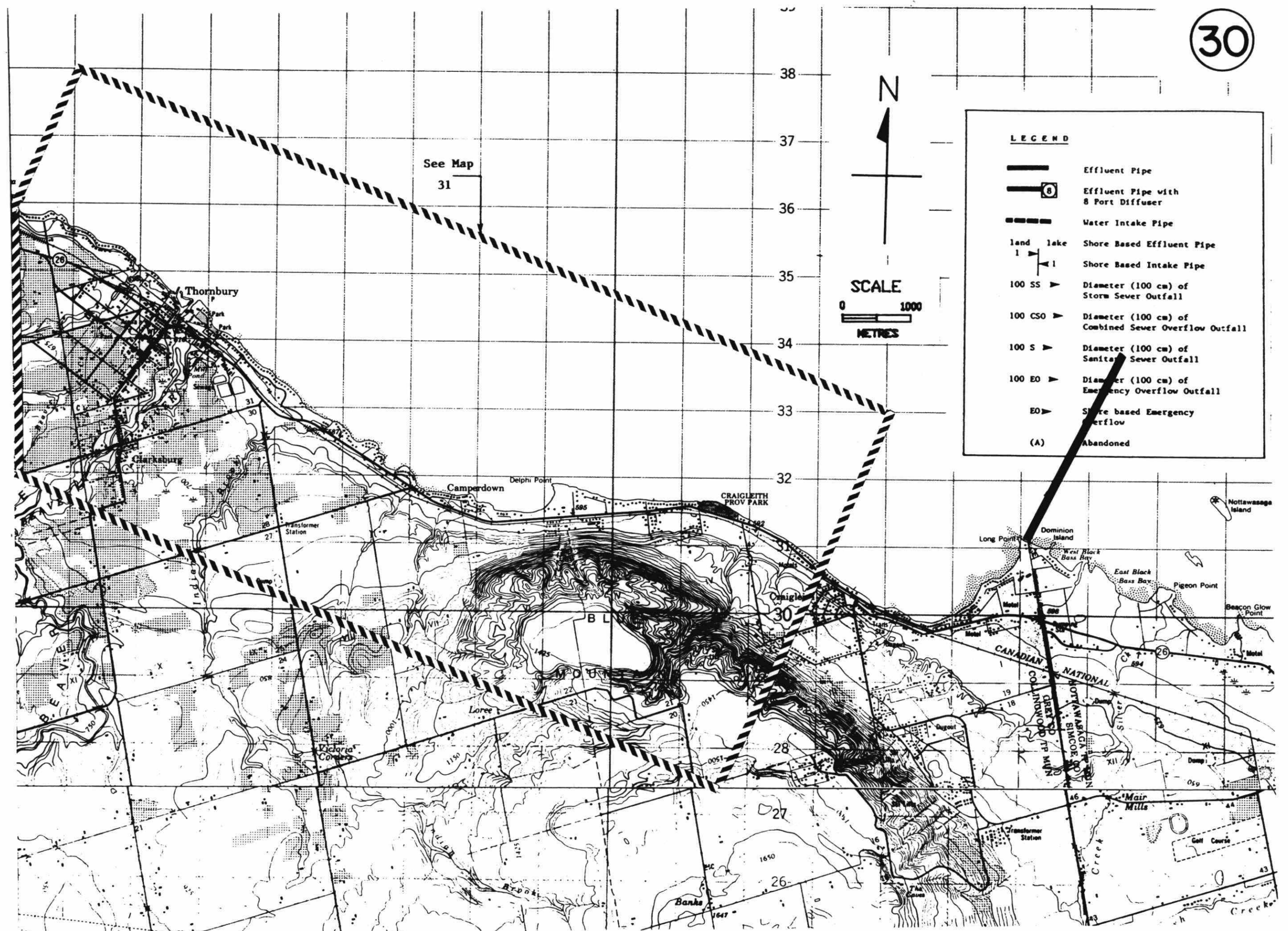


Oakview 1

Name	Collingwood WPCP	Goodyear Canada Inc.				
Intake/Outfall	Outfall	Outfall				
UMIS/INIS No.	120000550	NA				
Structure No.	1	2				
Map Number	29	29				
Operating Authority	MUN	IND				
Location	Collingwood	Collingwood				
Supplier/Receiver	Georgian Bay	Black Ash Creek				
Point of Discharge	Offshore	River Mouth				
Terminal Basin	Lake Huron	Lake Huron				
Activity	Municipal Sewage Treatment	Synthetics Manufacturing				
Process Type	Secondary Treatment					
Supply/Discharge Type	Continuous	Intermittent				
Treatment Type	Activated Sludge Chlorination	None				
Comments		Storm Water & Yard Drainage Only				
Design Flow (1000m3/day)	24.50	NA				
Mean Annual Flow (1000m3/day)	17.50	NA				
Pipe length from shore (m)	45.00	0.00				
Pipe Diameter (cm)	90.00	NA				
Water Depth at end of pipe (m)	2.10	NA				
Water depth above end of pipe (m)	1.20	NA				
Diffuser		NO				
Number of ports						



Name	Collingwood TWP STP						
Intake/Outfall	Outfall						
UMIS/IMIS No.	120001951						
Structure No.	1						
Map Number	30						
Operating Authority	MUN						
Location	Collingwood Township						
Supplier/Receiver	Georgian Bay						
Point of Discharge	Offshore						
Terminal Basin	Lake Huron						
Activity	Municipal Sewage Treatment						
Process Type	Tertiary Treatment						
Supply/Discharge Type	Continuous						
Treatment Type	Filtered Chlorination						
Comments							
Design Flow (1000m3/day)	10.50						
Mean Annual Flow (1000m3/day)	2.20						
Pipe length from shore (m)	3000.00						
Pipe Diameter (cm)	50.00						
Water Depth at end of pipe (m)	13.00						
Water depth above end of pipe (m)	12.00						
Diffuser	YES						
Number of ports	12						



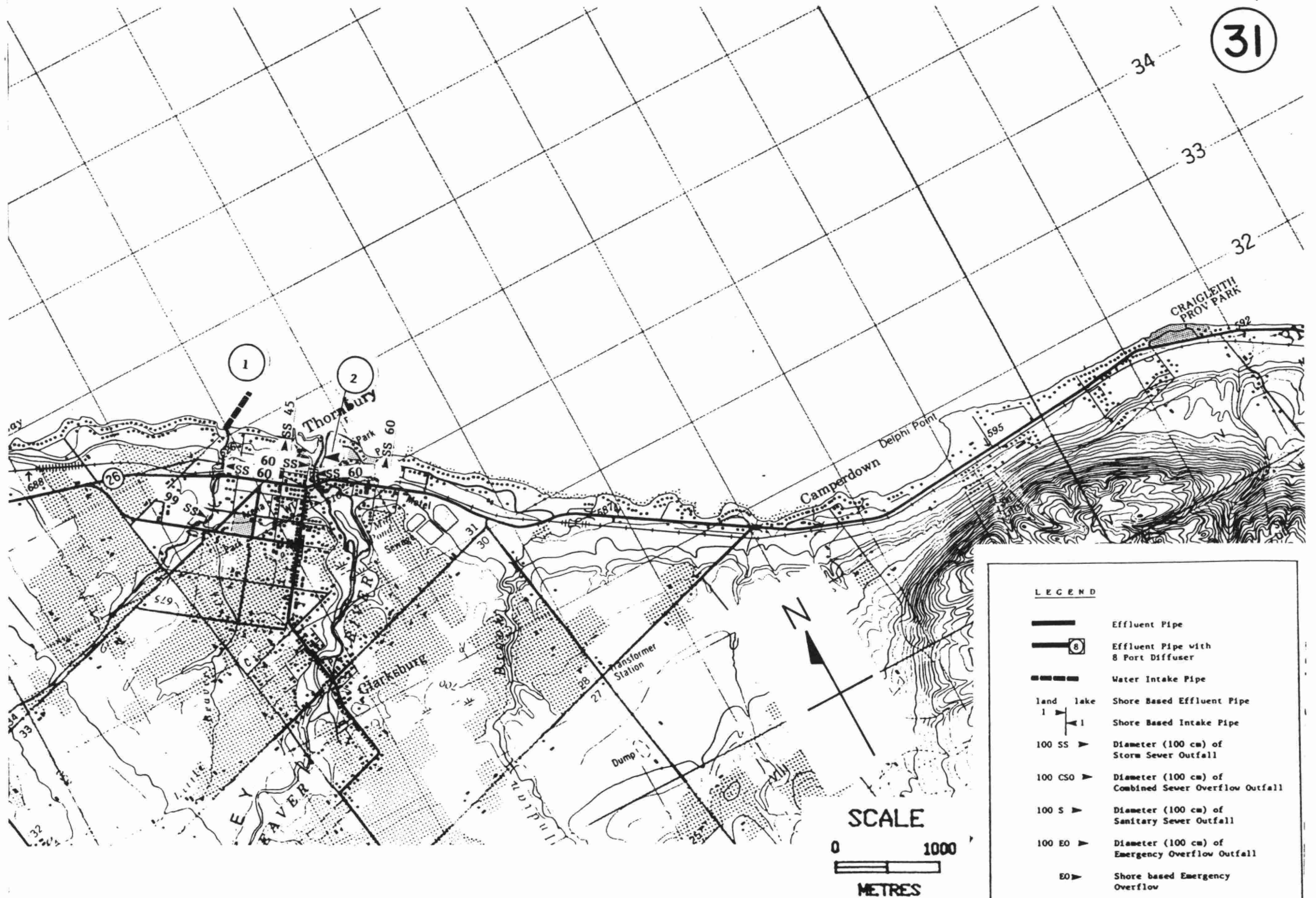
LEGEND

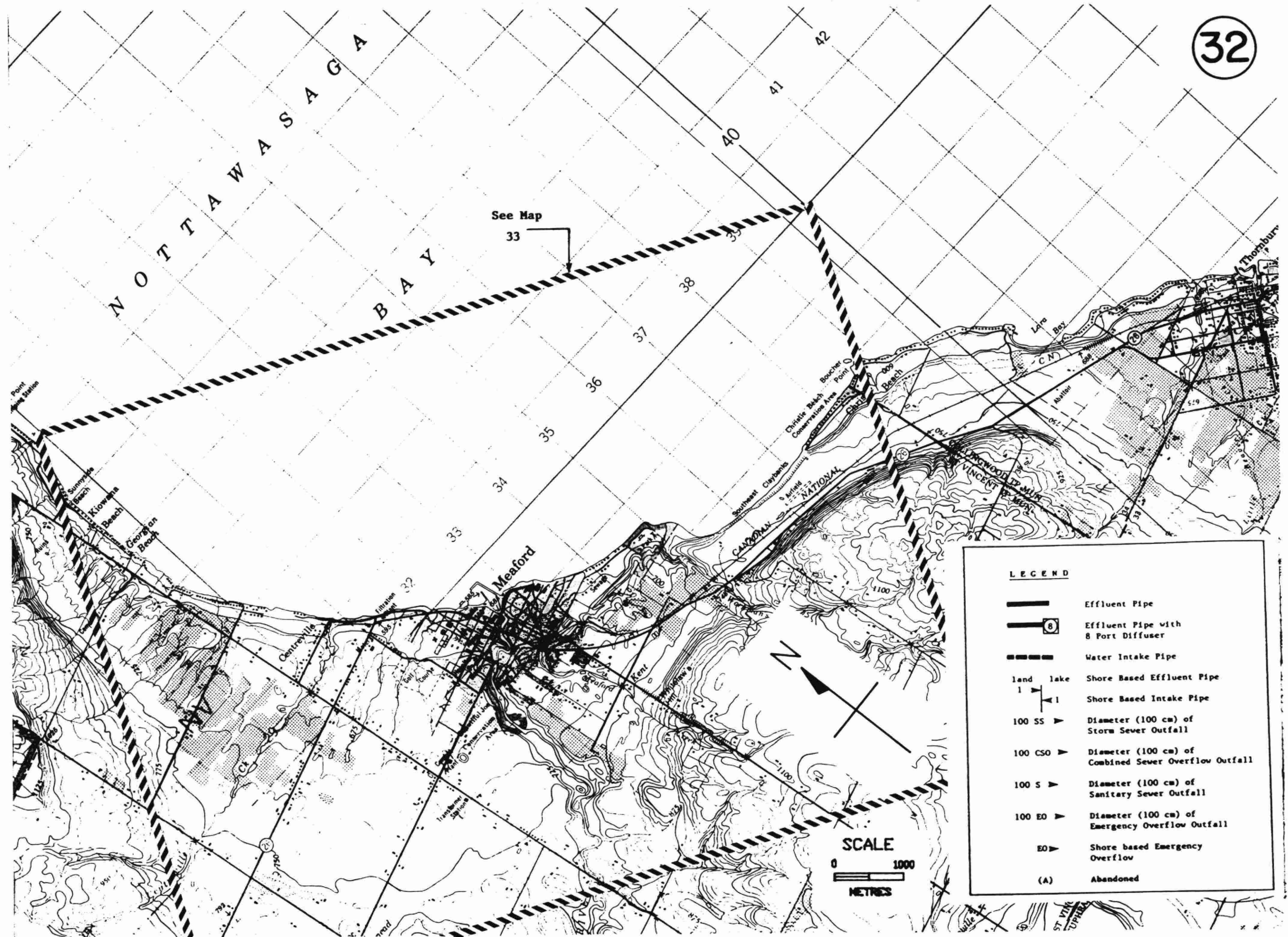
- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- Diameter (100 cm) of Storm Sewer Outfall
- Diameter (100 cm) of Combined Sewer Overflow Outfall
- Diameter (100 cm) of Sanitary Sewer Outfall
- Diameter (100 cm) of Emergency Overflow Outfall
- Shore based Emergency Overflow
- Abandoned

SCALE
0 1000
METRES

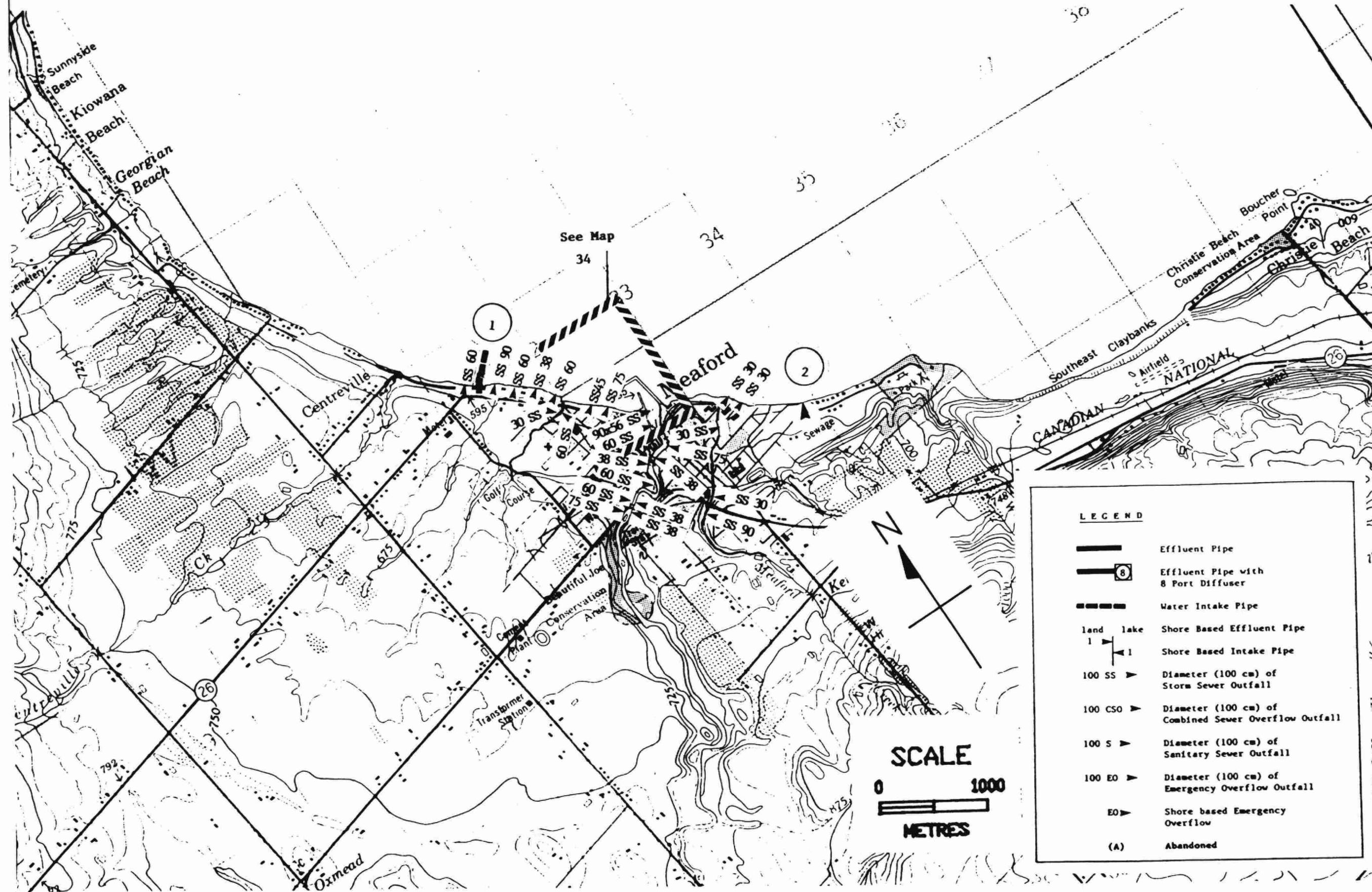


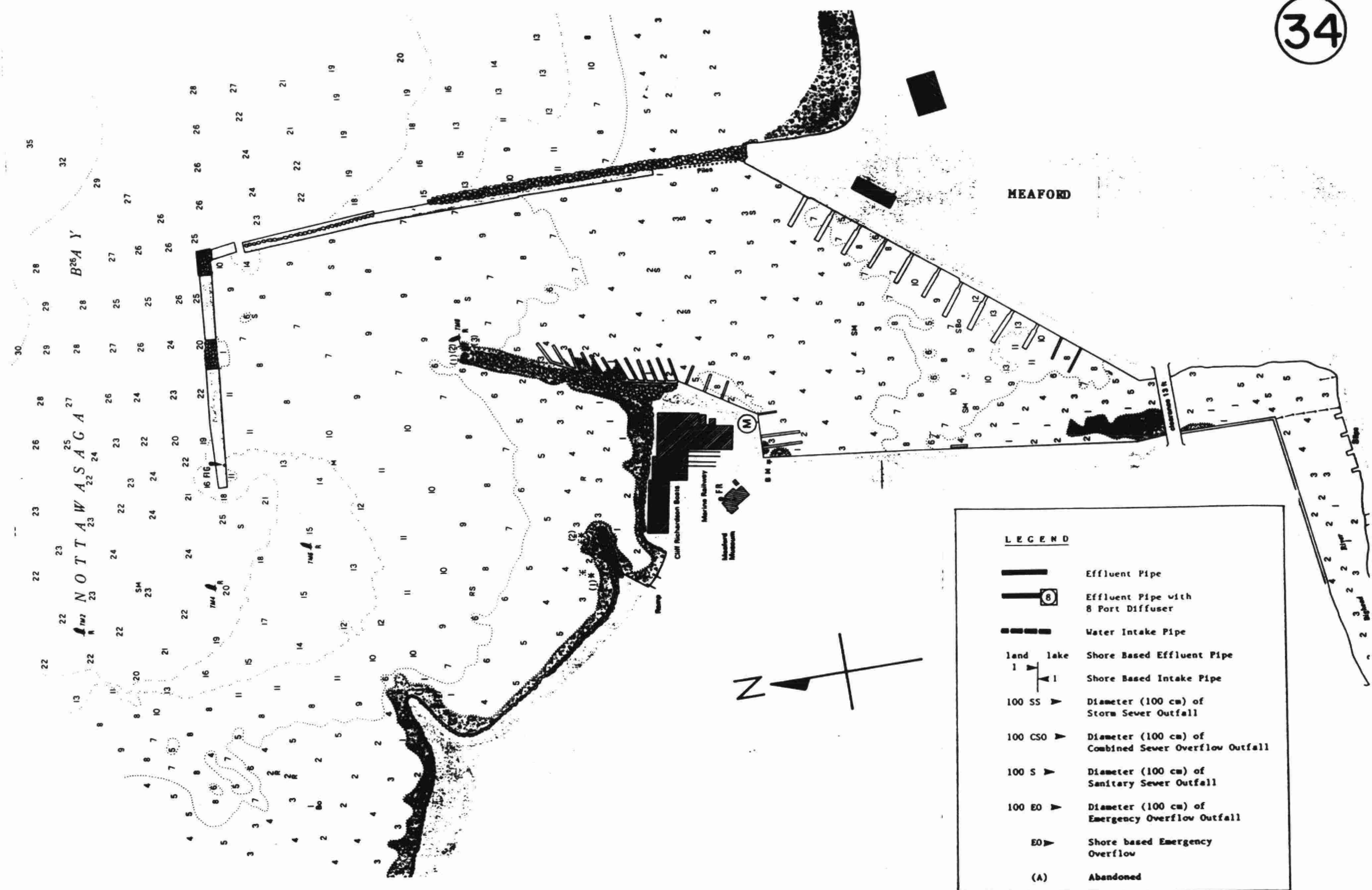
Name	Thornbury WTP	Thornbury WPCP					
Intake/Outfall	Intake	Outfall					
UNIS/INIS No.	220001762	110001890					
Structure No.	1	2					
Map Number	31	31					
Operating Authority	MUN PUC	MOE					
Location	Thornbury	Thornbury					
Supplier/Receiver	Georgian Bay	Beaver River					
Point of Discharge		Shore					
Terminal Basin	Lake Huron	Lake Huron					
Activity	Municipal Water Treatment	Municipal Sewage Treatment					
Process Type	Physical and Chemical Treatment	Secondary Treatment					
Supply/Discharge Type	Continuous	Continuous					
Treatment Type	Screened, filtered Chlorinated	Aerated Cell Lagoon					
Comments							
Design Flow (1000m3/day)	5.00	1.73					
Mean Annual Flow (1000m3/day)	1.69	1.45					
Pipe length from shore (m)	502.00	0.00					
Pipe Diameter (cm)	66.00	40.64					
Water Depth at end of pipe (m)	7.92	3.91					
Water depth above end of pipe (m)	10.06	3.91					
Diffuser		NO					
Number of ports							





Name	Meaford WTP	Meaford WPCP					
Intake/Outfall	Intake	Outfall					
UMIS/INIS No.	210000176	110000445					
Structure No.	1	2					
Map Number	33	33					
Operating Authority	MOE	MOE					
Location	Meaford	Meaford					
Supplier/Receiver	Georgian Bay	Georgian Bay					
Point of Discharge		Shore					
Terminal Basin	Lake Huron	Lake Huron					
Activity	Municipal Water Treatment	Municipal Sewage Treatment					
Process Type	Physical and Chemical Treatment	Secondary Treatment					
Supply/Discharge Type	Continuous	Continuous					
Treatment Type	Physical Treatment Chlorination	High Rate					
Comments							
Design Flow (1000m3/day)	14.40	3.91					
Mean Annual Flow (1000m3/day)	3.18	3.25					
Pipe length from shore (m)	277.00	NA					
Pipe Diameter (cm)	76.20	60.96					
Water Depth at end of pipe (m)	4.90	NA					
Water depth above end of pipe (m)	5.48	NA					
Diffuser		NO					
Number of ports							

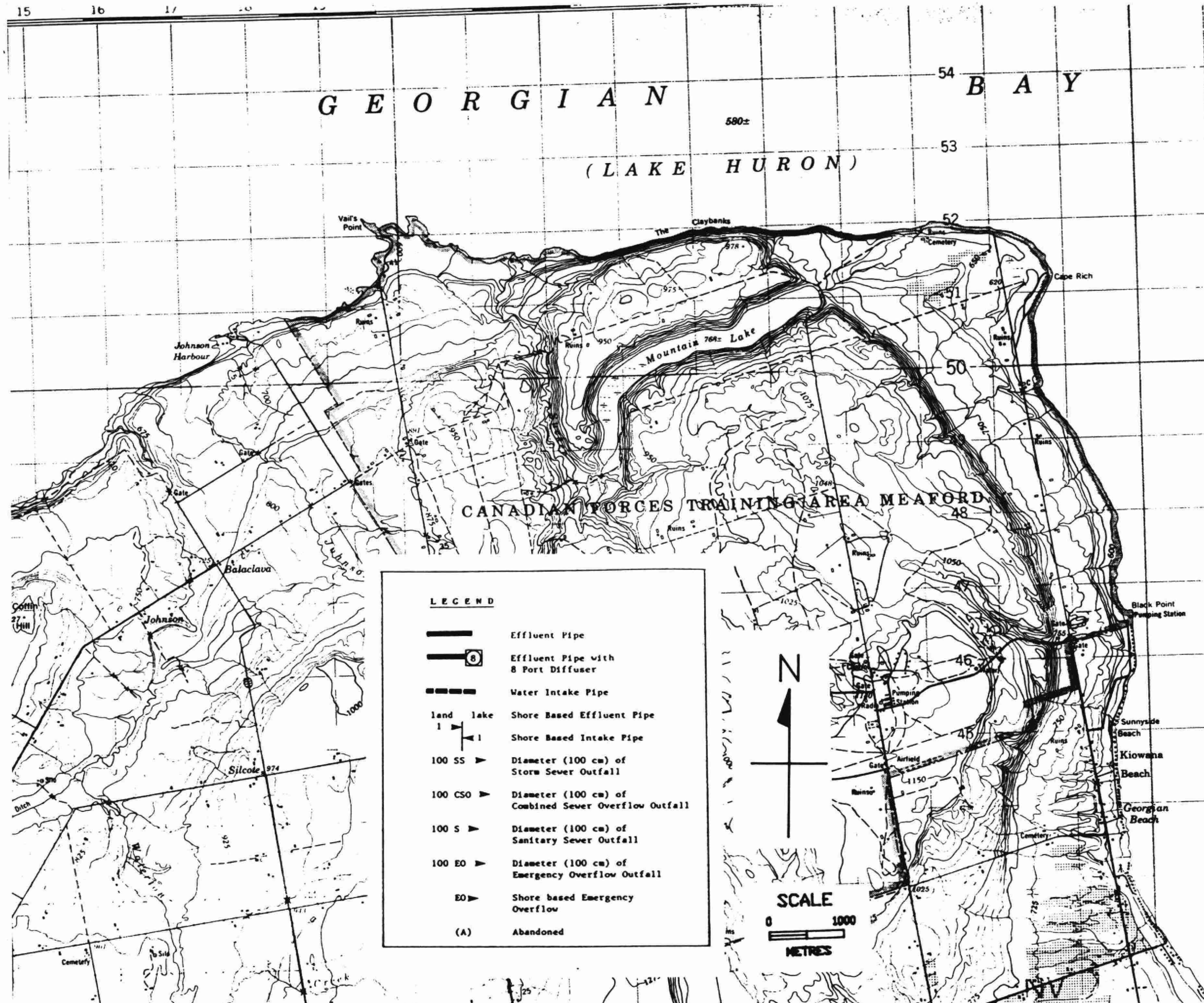


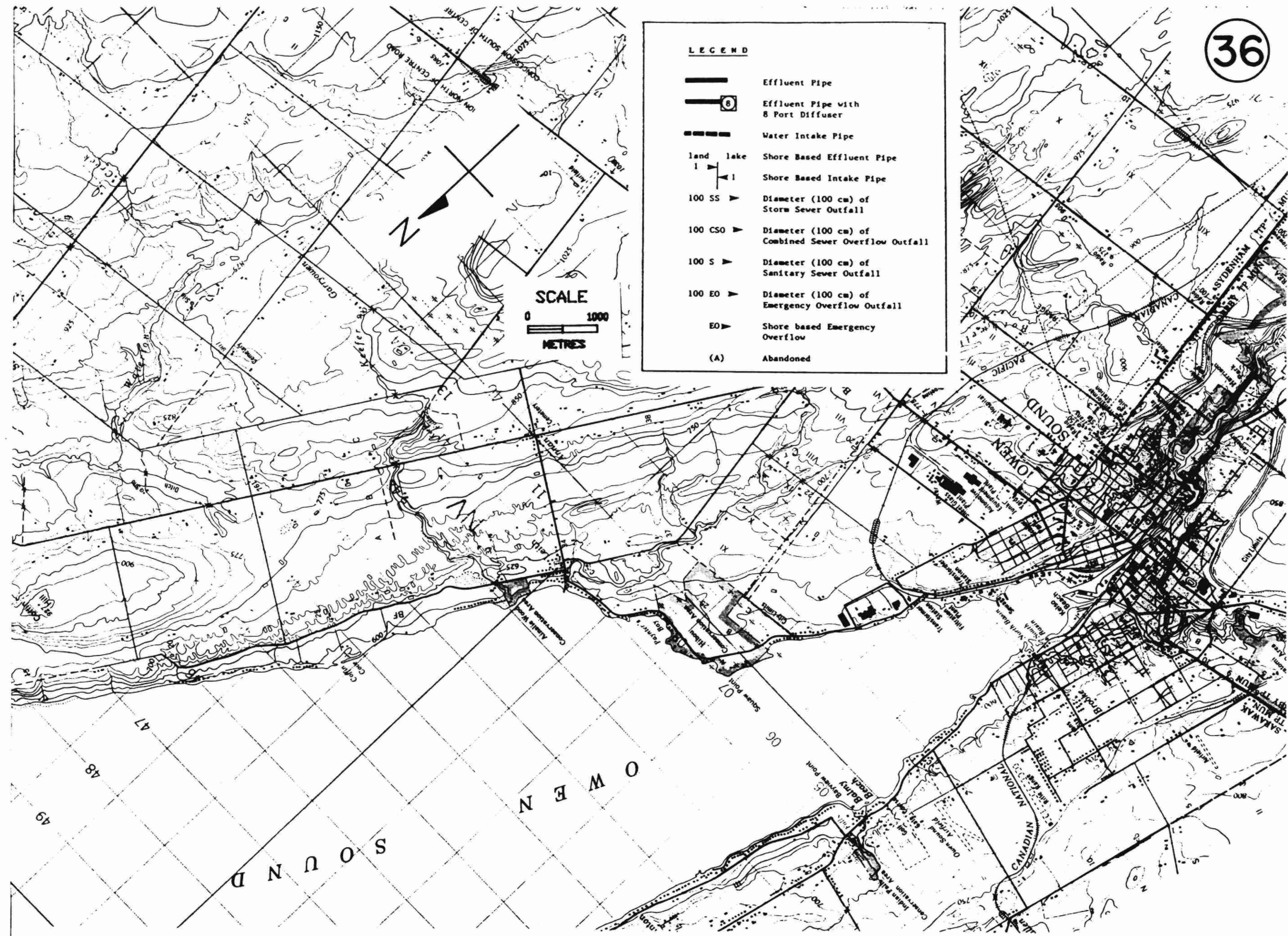


MEAFORD

LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS > Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S > Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO > Diameter (100 cm) of Emergency Overflow Outfall
- EO > Shore based Emergency Overflow
- (A) > Abandoned

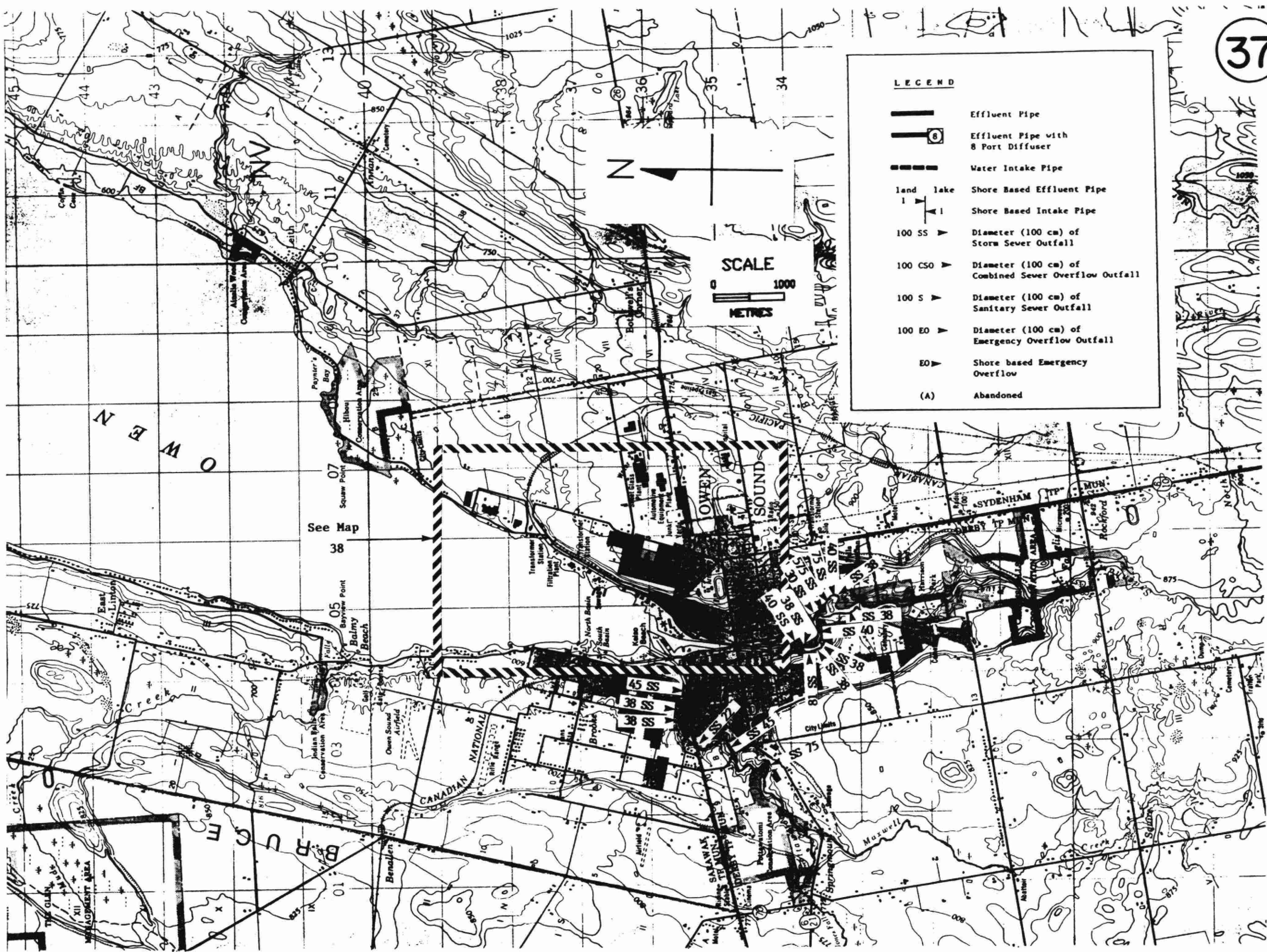




LEGEND

- Effluent Pipe
- [8] — Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake
- 100 SS > Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S > Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO > Diameter (100 cm) of Emergency Overflow Outfall
- EO > Shore based Emergency Overflow
- (A) Abandoned

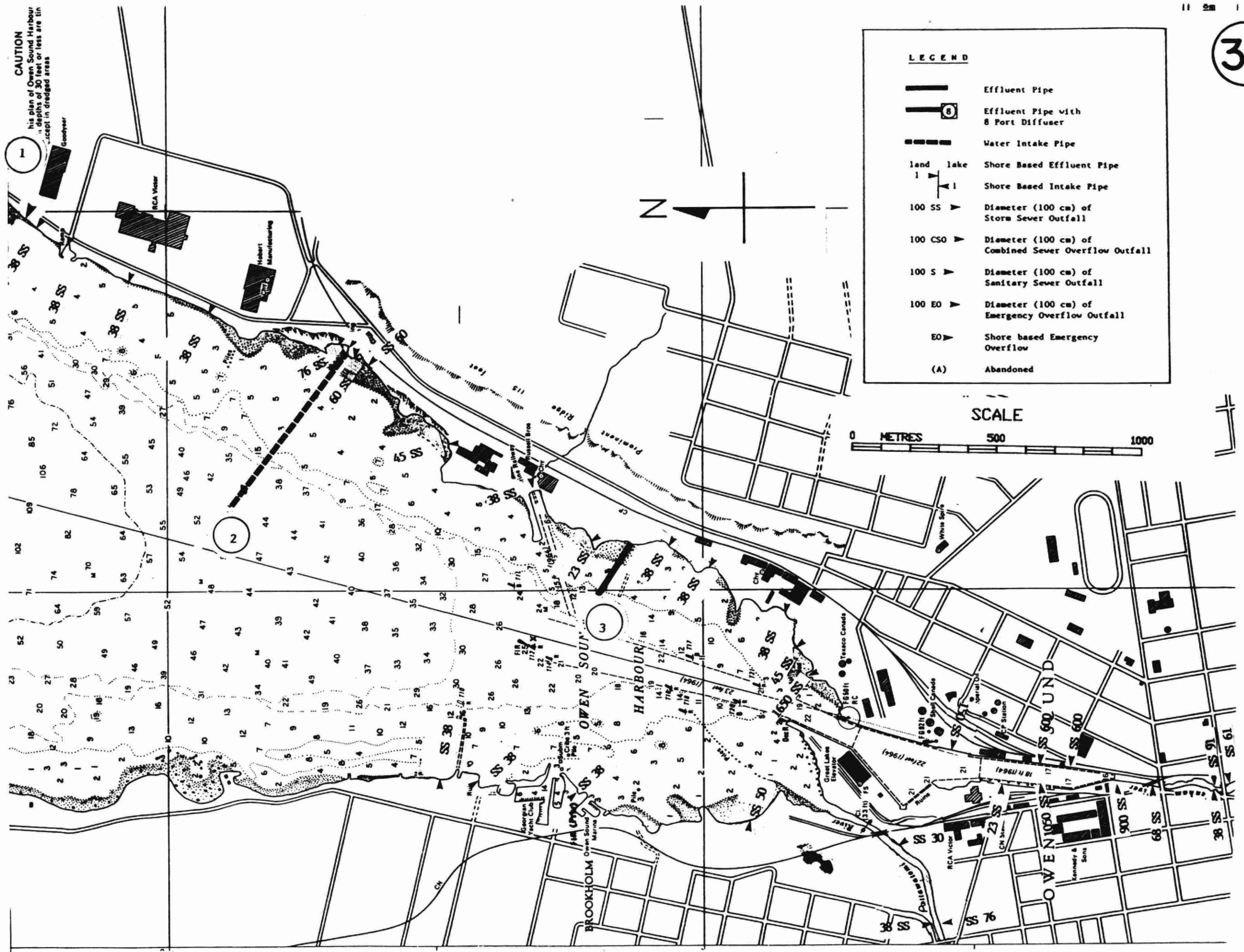
SCALE
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METRES



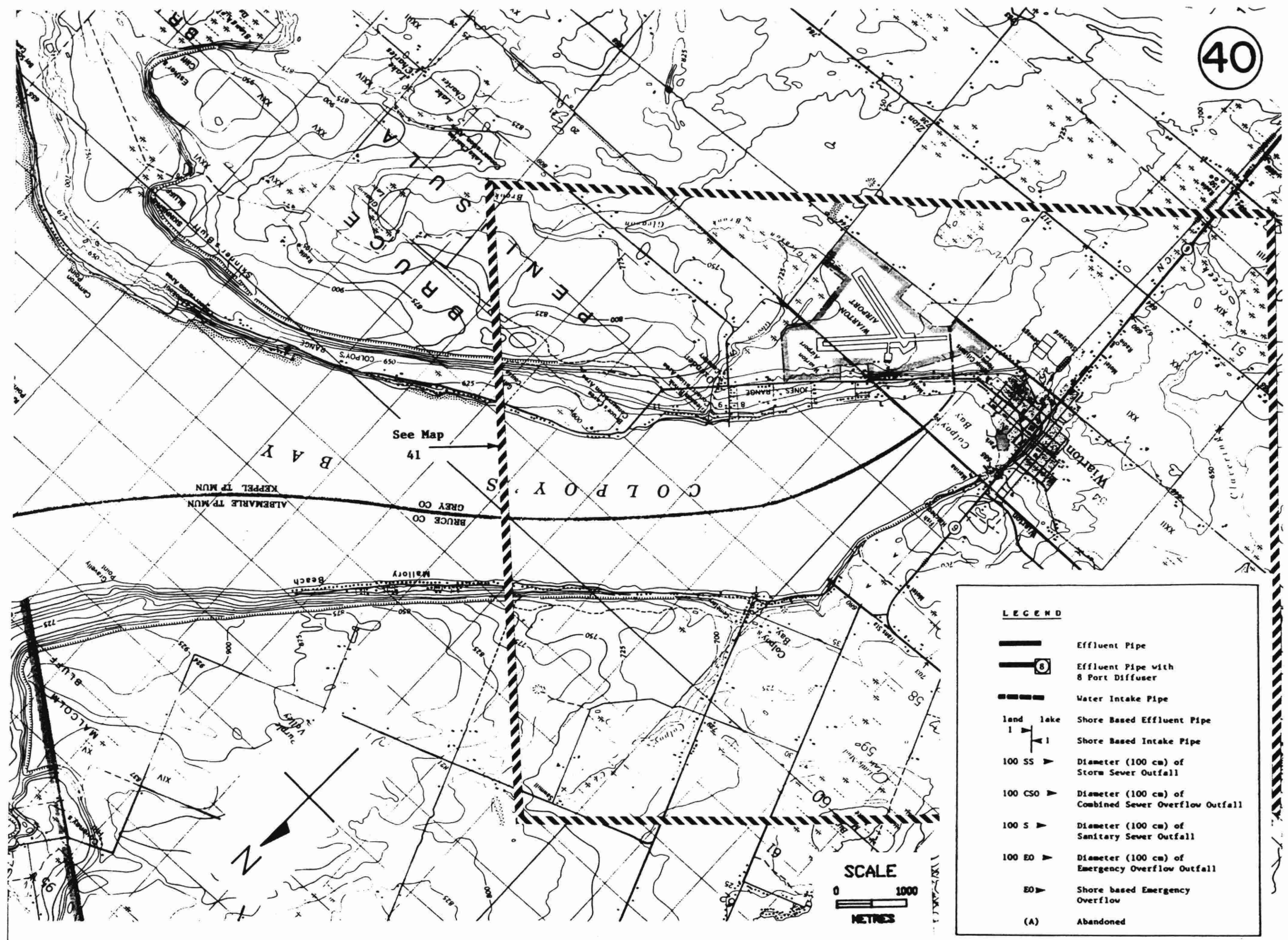
LEGEND

- Effluent Pipe
- 8 Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS > Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S > Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO > Diameter (100 cm) of Emergency Overflow Outfall
- EO > Shore based Emergency Overflow
- (A) Abandoned

Name	Goodyear Canada Inc.	Owen Sound WTP	Owen Sound WPCP				
Intake/Outfall	Outfall	Intake	Outfall				
UMIS/IMIS No.	NA	220001799	110000551				
Structure No.	1	2	3				
Map Number	38	38	38				
Operating Authority	IND	NDM PUC	MOE				
Location	Owen Sound	Owen Sound	Owen Sound				
Supplier/Receiver	Owen Sound Bay	Georgian Bay	Georgian Bay				
Point of Discharge	Embayment		Harbour				
Terminal Basin	Lake Huron	Lake Huron	Lake Huron				
Activity	Various Industrial Materials	Municipal Water Treatment	Municipal Sewage Treatment				
Process Type	Printers, Roofing Materials, Transmission Parts	Physical and Chemical Treatment	Primary Treatment				
Supply/Discharge Type	Continuous	Continuous	Continuous				
Treatment Type	Water Softener	Filtration, Coagulation Chlorination, Fluoridation	P Removal-Continuous				
Comments							
Design Flow (1000m3/day)	1000.00	45.40	24.55				
Mean Annual Flow (1000m3/day)	800.00	11.75	22.50				
Pipe length from shore (m)	0.00	670.00	201.00				
Pipe Diameter (cm)	55.00	91.44	106.68				
Water Depth at end of pipe (m)	0.00	13.70	9.14				
Water depth above end of pipe (m)	0.00	NA	9.14				
Diffuser	NO		NO				
Number of ports							



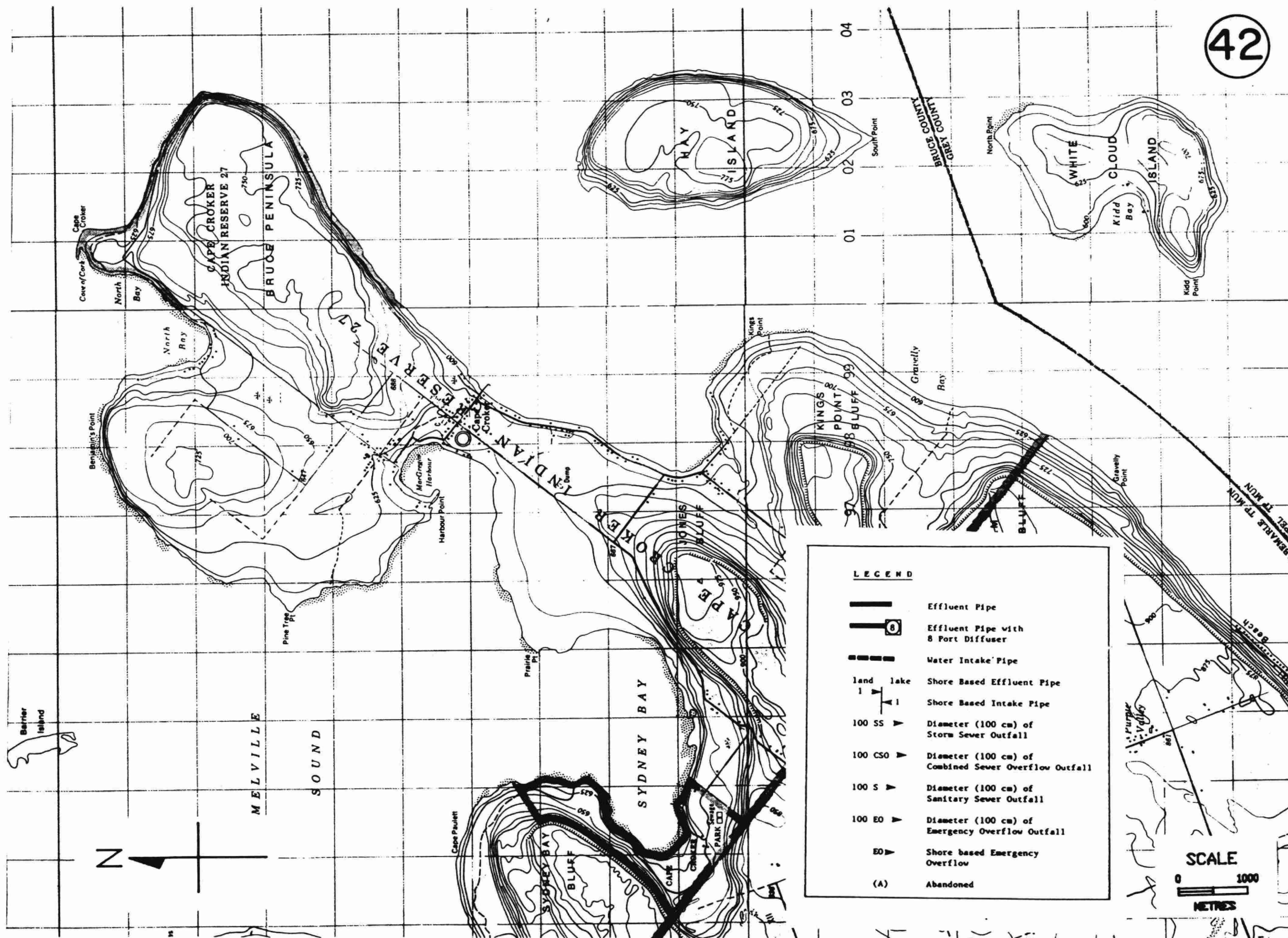
CAUTION
his plan of Owen Sound Harbour
in depths of 30 feet or less are in
except in dredged areas



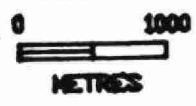
LEGEND

	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
	Diameter (100 cm) of Storm Sewer Outfall
	Diameter (100 cm) of Combined Sewer Overflow Outfall
	Diameter (100 cm) of Sanitary Sewer Outfall
	Diameter (100 cm) of Emergency Overflow Outfall
	Shore based Emergency Overflow
	Abandoned

Name	Warton WTP	Warton WPCP					
Intake/Outfall	Intake	Outfall					
UMIS/INIS No.	220002681	110000819					
Structure No.	1	2					
Map Number	41	41					
Operating Authority	MUN	MOE					
Location	Warton	Warton					
Supplier/Receiver	Colpoy Bay	Colpoy Bay					
Point of Discharge		Embayment					
Terminal Basin	Lake Huron	Lake Huron					
Activity	Municipal Water Treatment	Municipal Sewage Treatment					
Process Type	Chemical Treatment	Secondary Treatment					
Supply/Discharge Type	Continuous	Continuous					
Treatment Type	Chlorination	Conventional Lagoon P Removal-Continuous					
Comments	Records destroyed In Fire						
Design Flow (1000m3/day)	NA	2.06					
Mean Annual Flow (1000m3/day)	NA	2.44					
Pipe length from shore (m)	19.80	407.00					
Pipe Diameter (cm)	30.50	71.00					
Water Depth at end of pipe (m)	NA	4.00					
Water depth above end of pipe (m)	NA	4.00					
Diffuser		NO					
Number of ports							



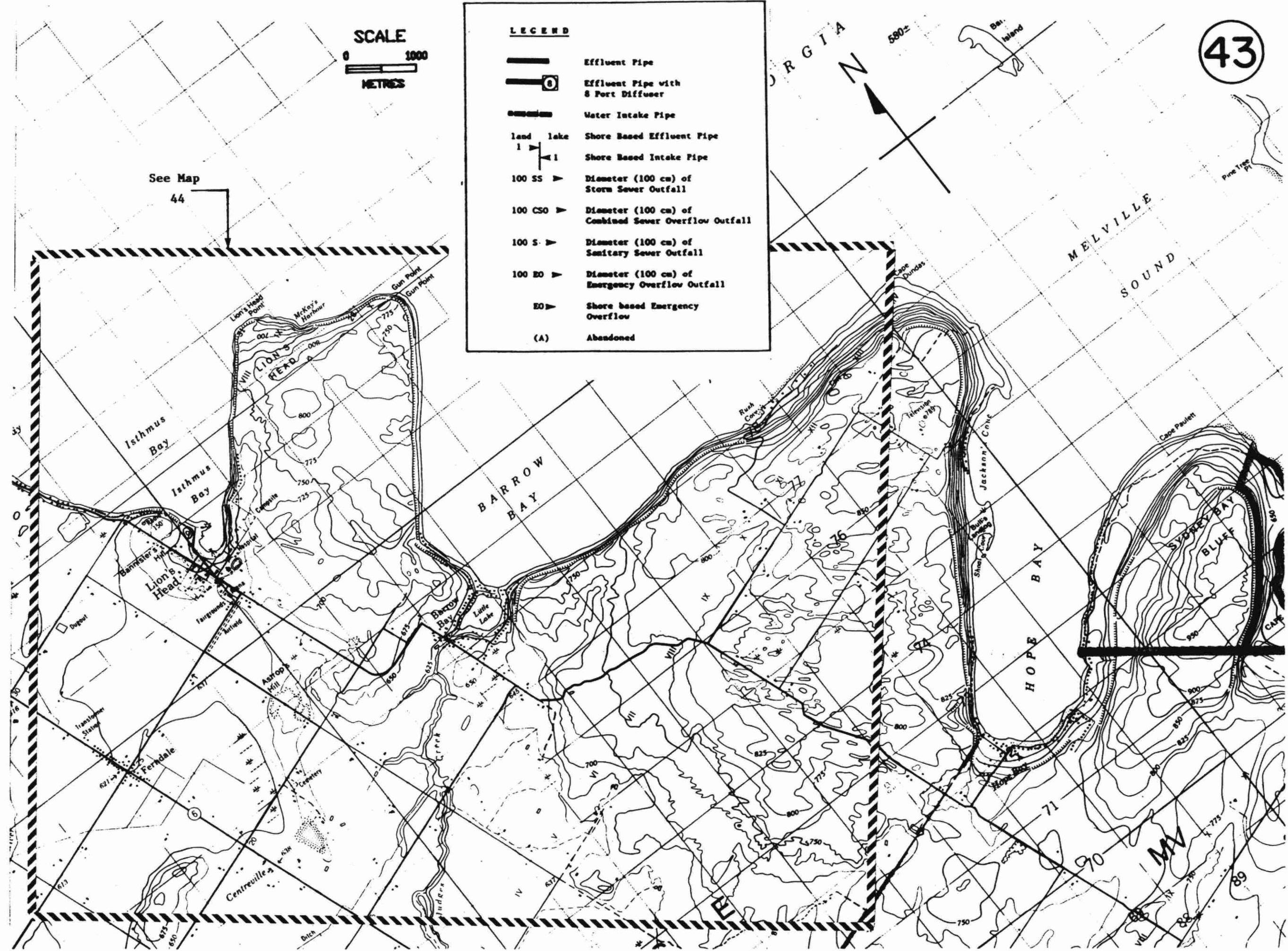
SCALE



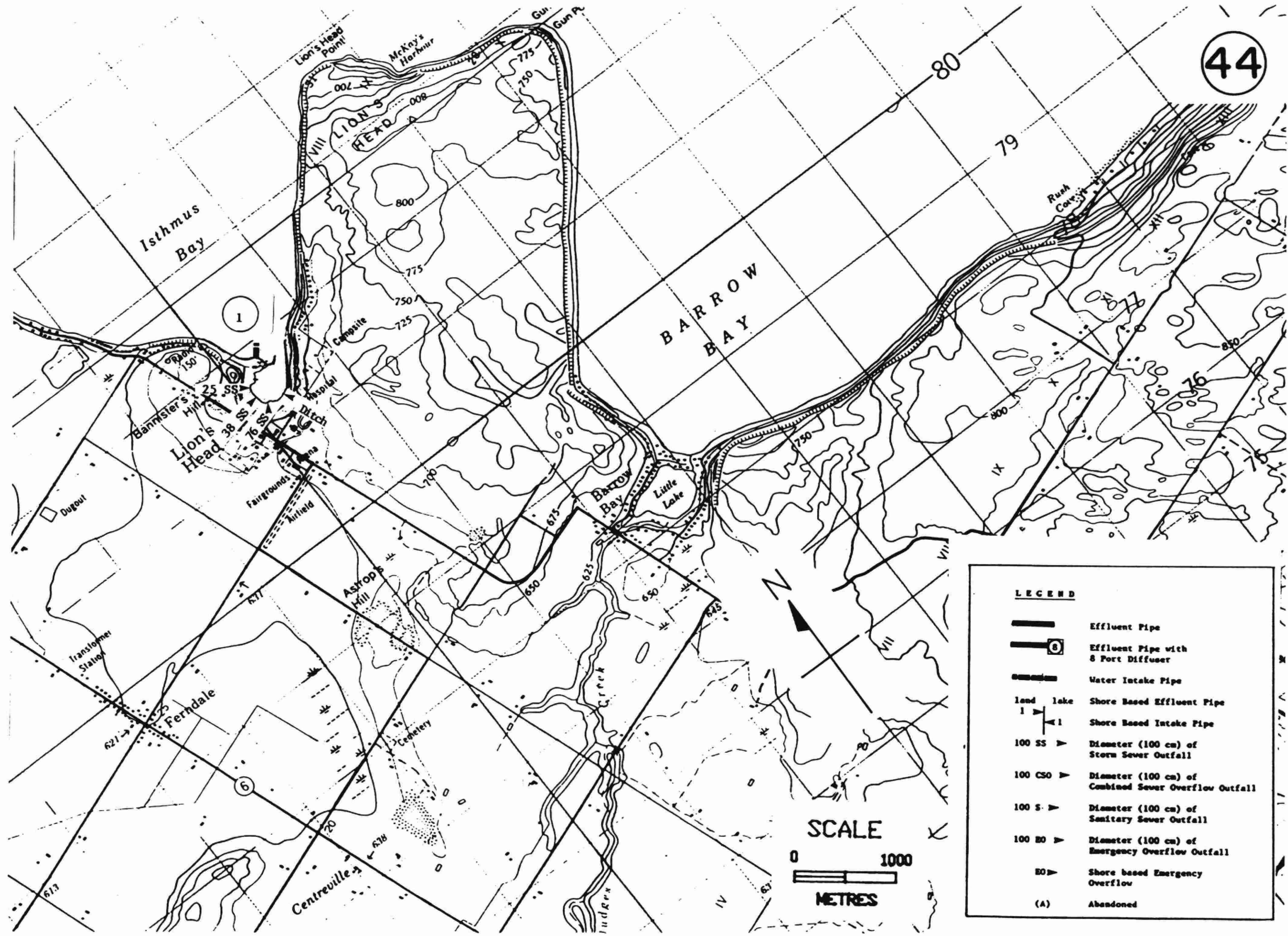
LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS > Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S > Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO > Diameter (100 cm) of Emergency Overflow Outfall
- EO > Shore based Emergency Overflow
- (A) Abandoned

See Map
44



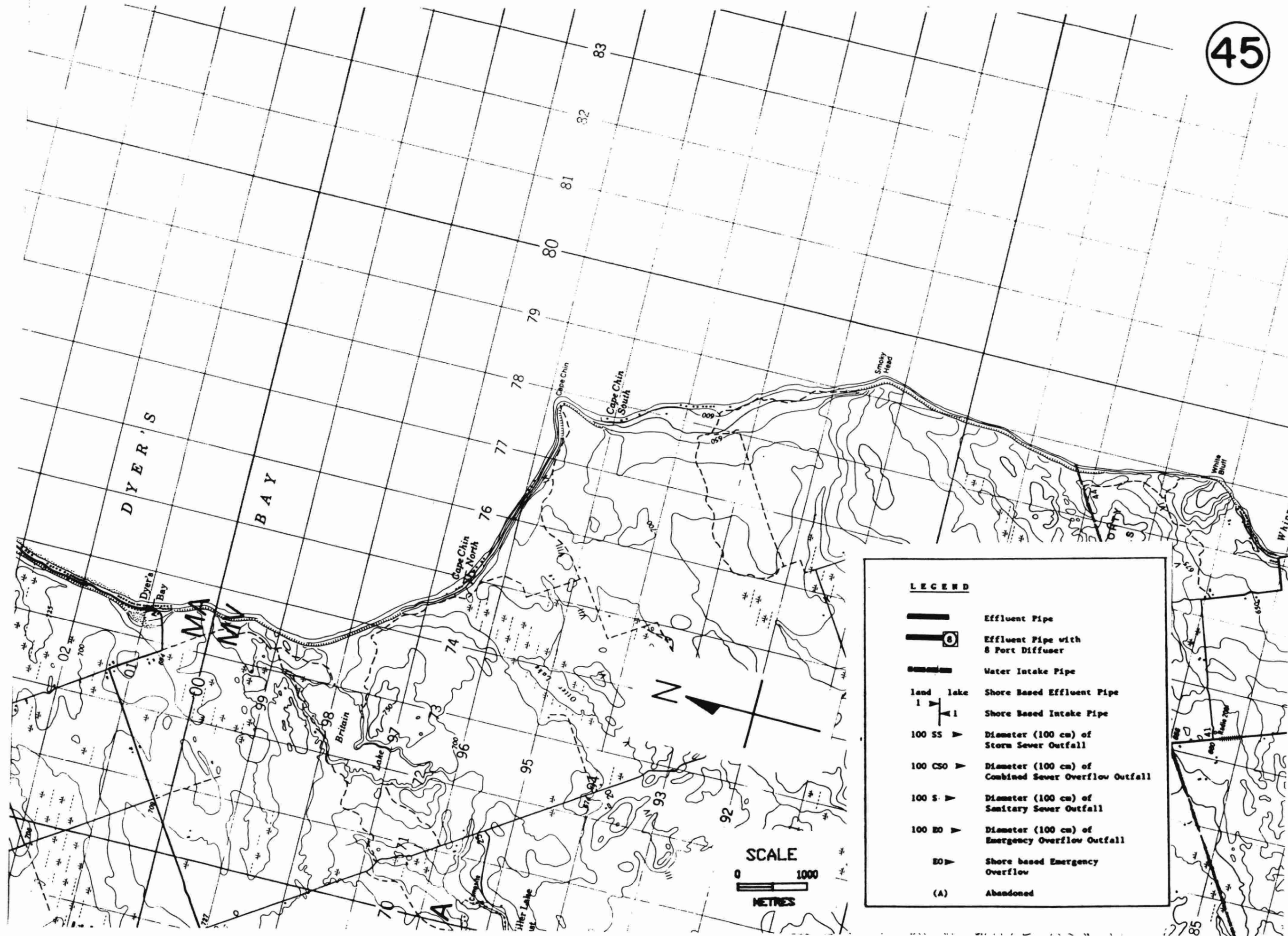
Name	Lions Head WTP					
Intake/Outfall	Intake					
UMIS/IMIS No.	220002672					
Structure No.	1					
Map Number	44					
Operating Authority	MUN					
Location	Lions Head					
Supplier/Receiver	Georgian Bay					
Point of Discharge						
Terminal Basin	Lake Huron					
Activity	Municipal Water Treatment					
Process Type	Chemical Treatment					
Supply/Discharge Type	Continuous					
Treatment Type	Chlorination					
Comments						
Design Flow (1000m3/day)	2.35					
Mean Annual Flow (1000m3/day)	0.34					
Pipe length from shore (m)	90.00					
Pipe Diameter (cm)	20.32					
Water Depth at end of pipe (m)	6.00					
Water depth above end of pipe (m)	6.00					
Diffuser						
Number of ports						

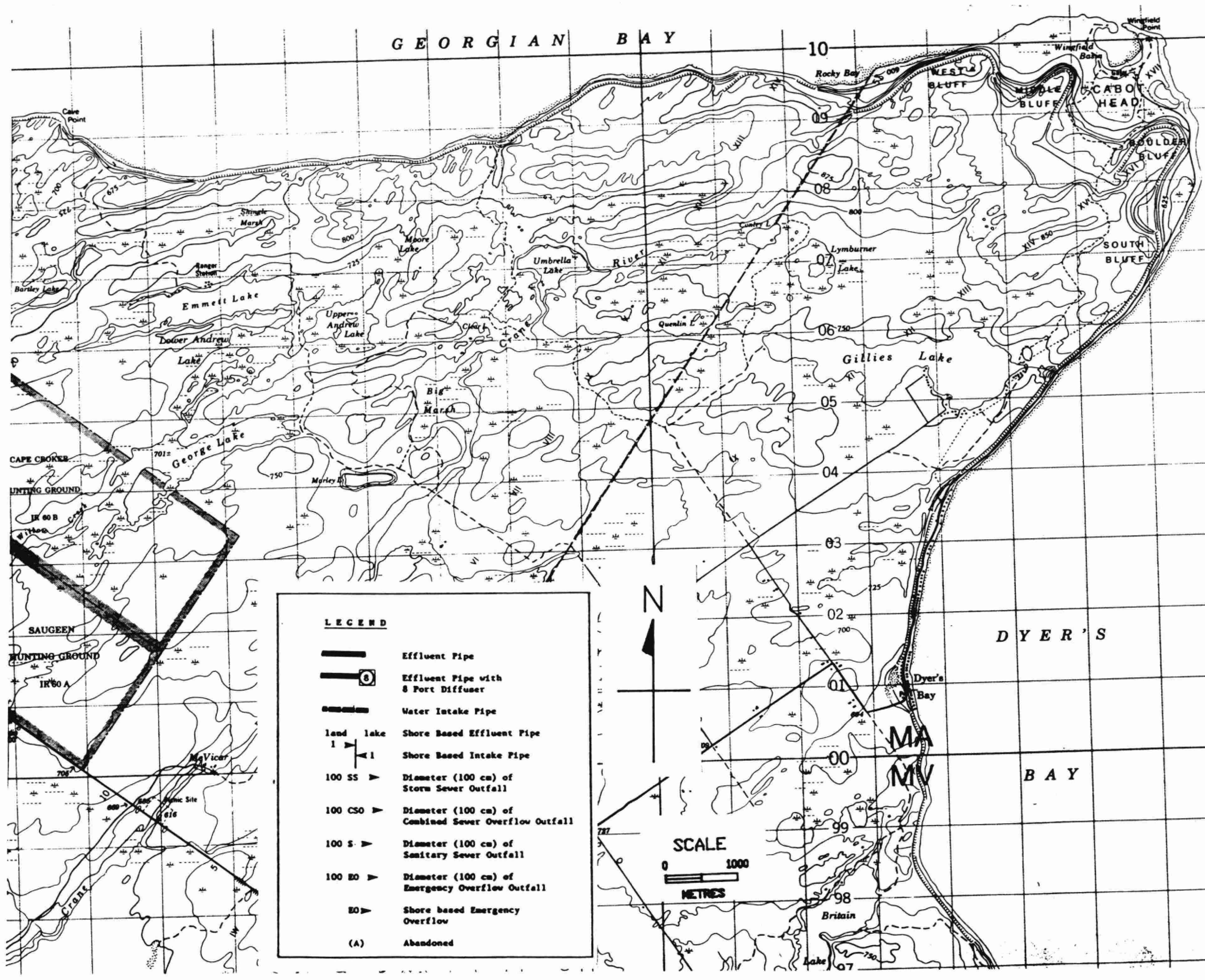


LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- Diameter (100 cm) of Storm Sewer Outfall
- Diameter (100 cm) of Combined Sewer Overflow Outfall
- Diameter (100 cm) of Sanitary Sewer Outfall
- Diameter (100 cm) of Emergency Overflow Outfall
- Shore based Emergency Overflow
- Abandoned

SCALE
0 1000
METRES





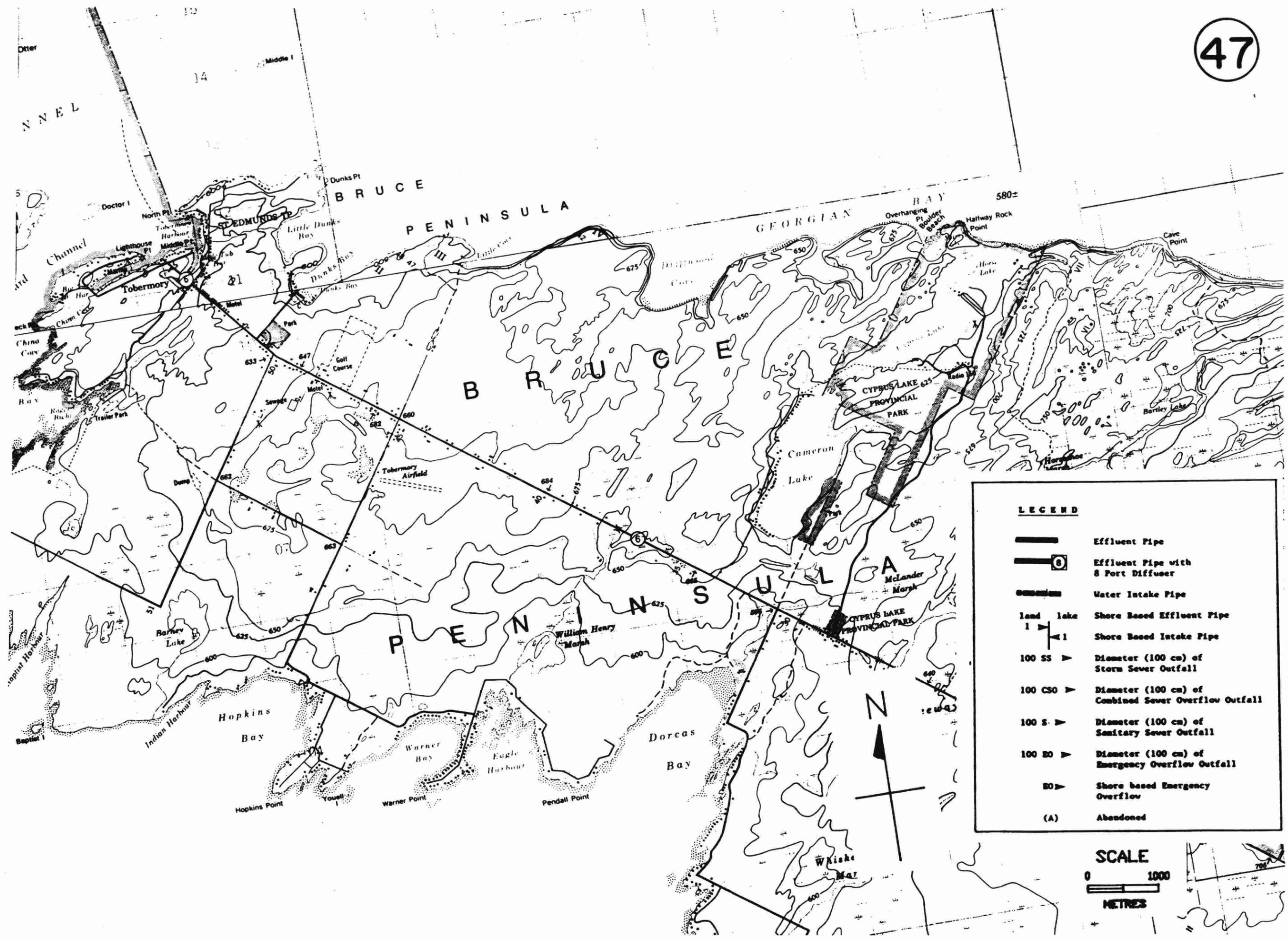
LEGEND

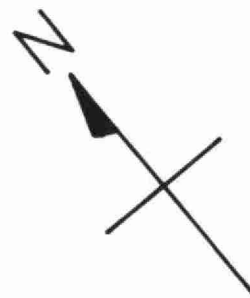
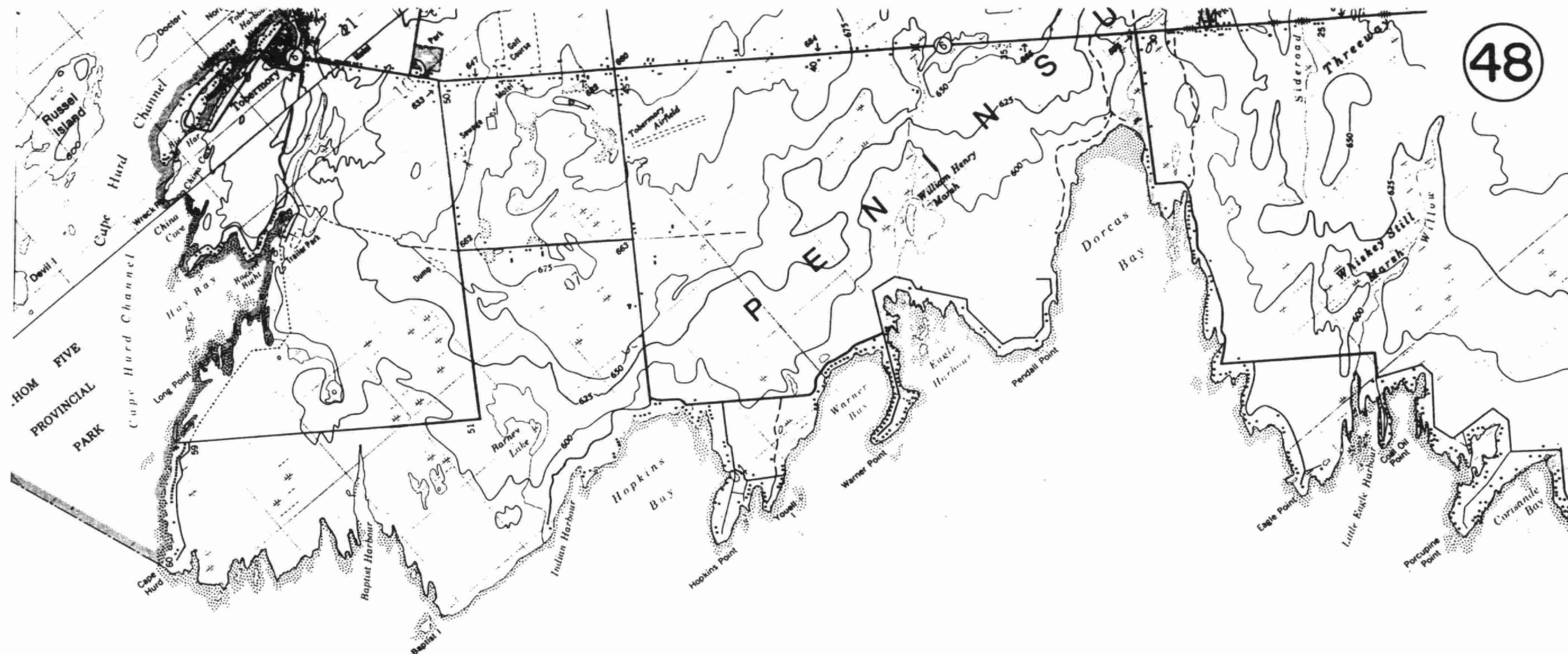
	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS >	Diameter (100 cm) of Storm Sewer Outfall
100 CSO >	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S >	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO >	Diameter (100 cm) of Emergency Overflow Outfall
EO >	Shore based Emergency Overflow
(A)	Abandoned

SCALE

0 1000 METRES

N

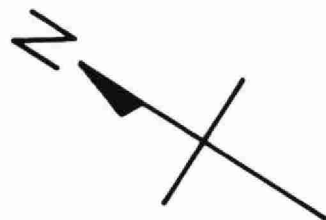
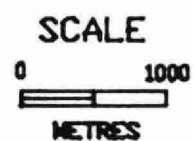
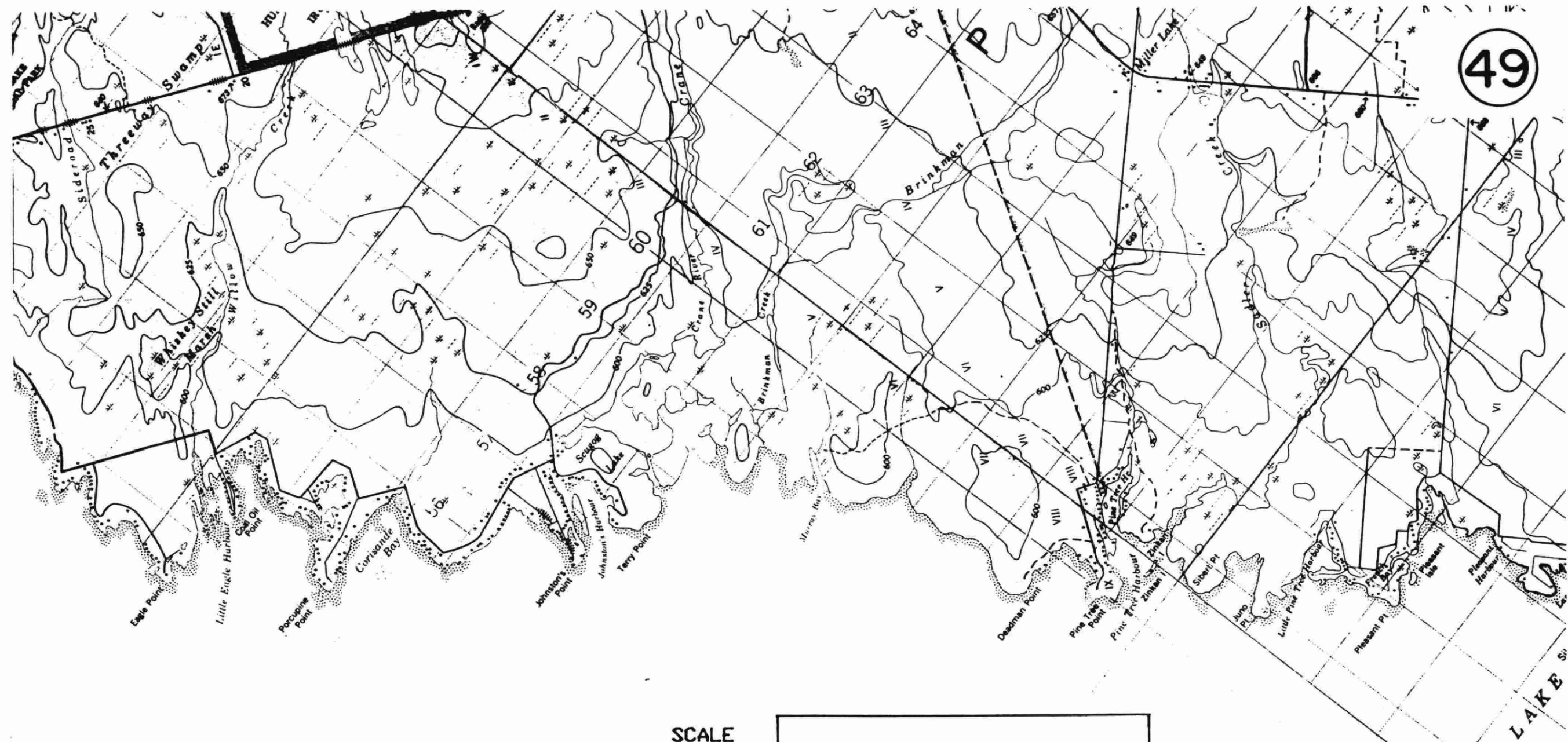




SCALE
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METRES

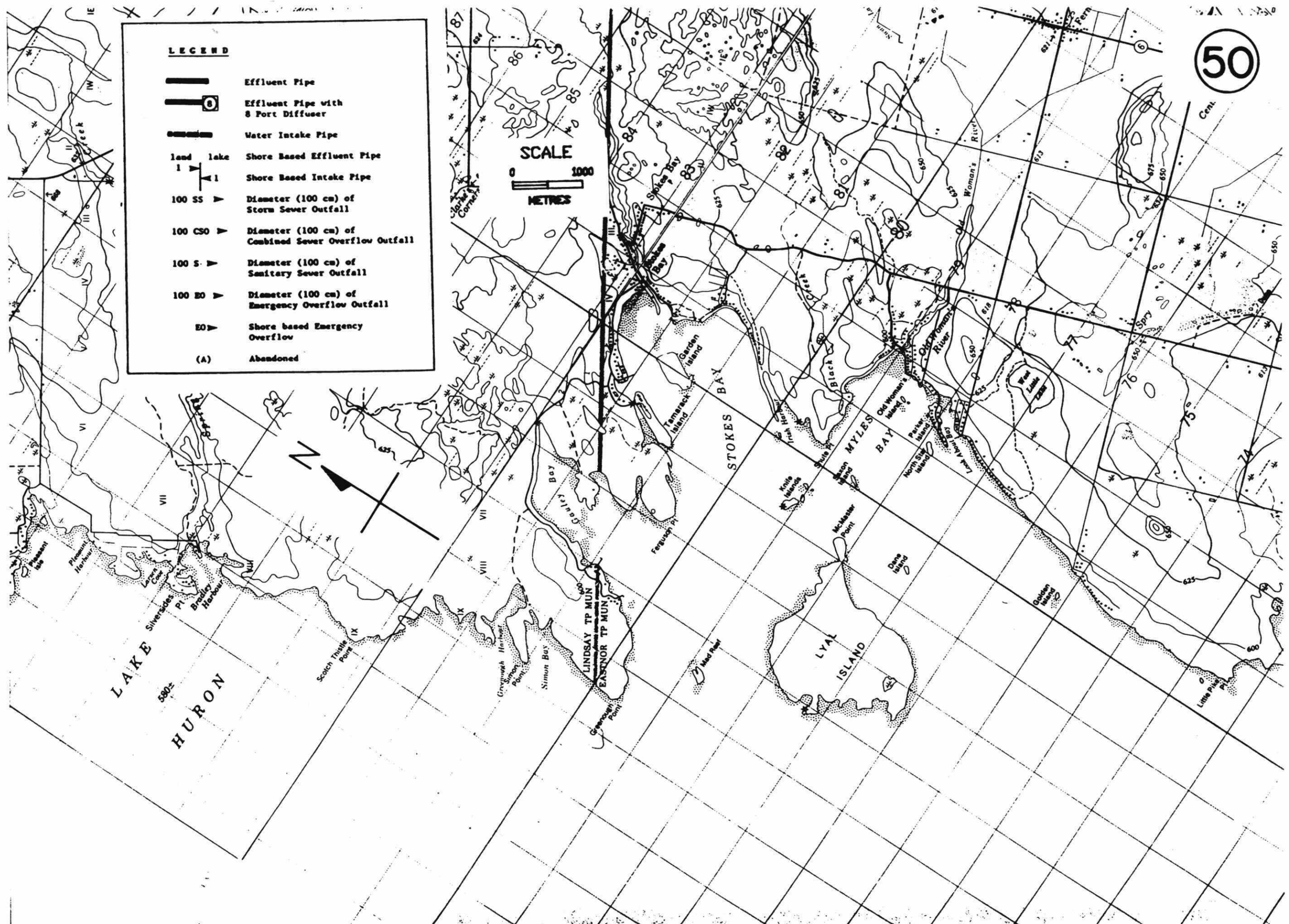
LEGEND

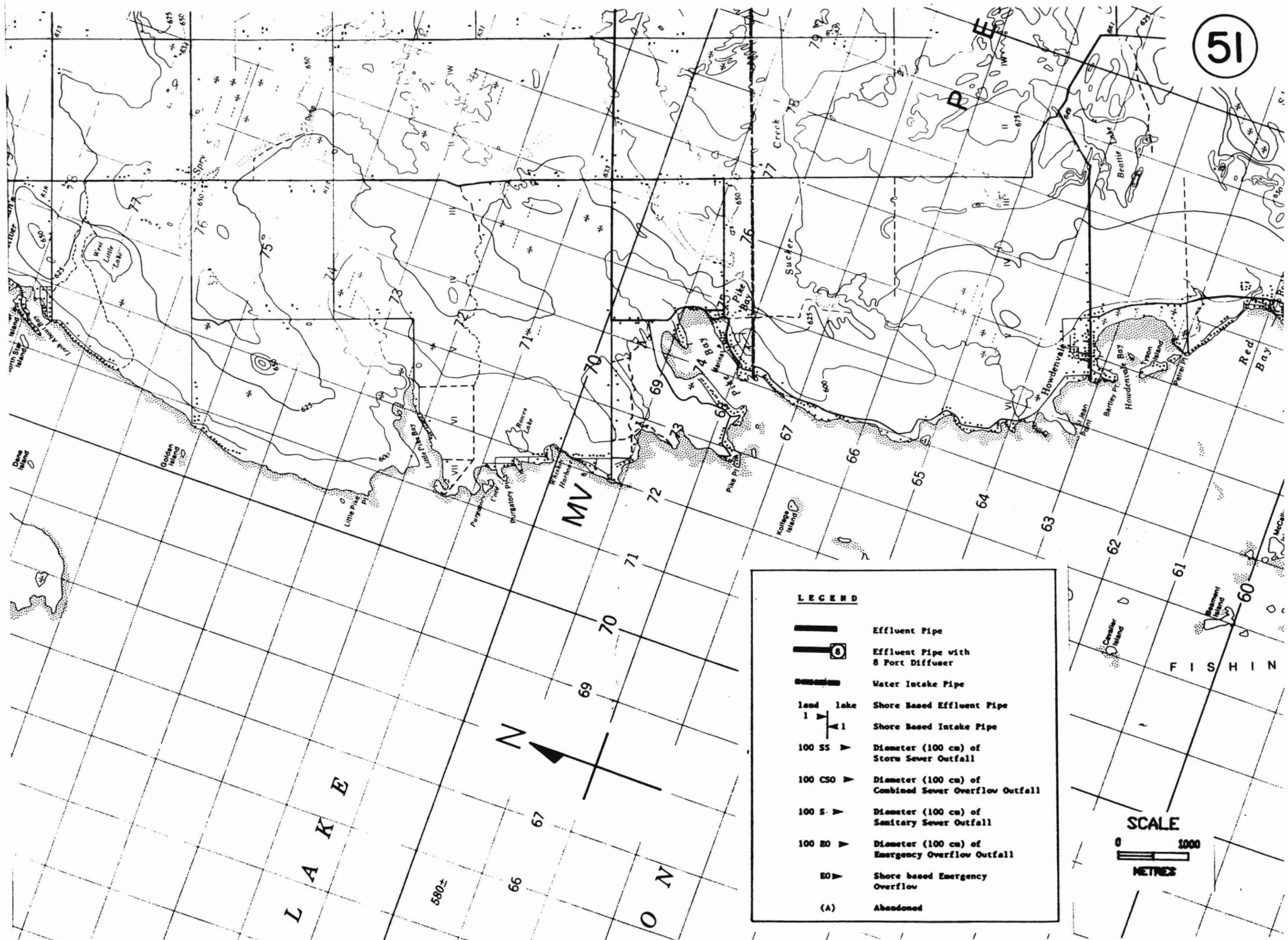
-  Effluent Pipe
-  Effluent Pipe with 6 Port Diffuser
-  Water Intake Pipe
-  land lake
Shore Based Effluent Pipe
-  Shore Based Intake Pipe
-  100 SS > Diameter (100 cm) of Storm Sewer Outfall
-  100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
-  100 S > Diameter (100 cm) of Sanitary Sewer Outfall
-  100 EO > Diameter (100 cm) of Emergency Overflow Outfall
-  EO > Shore based Emergency Overflow
-  (A) Abandoned



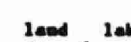
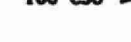
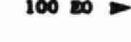
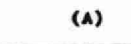
LEGEND

-  Effluent Pipe
-  Effluent Pipe with 8 Port Diffuser
-  Water Intake Pipe
-  Shore Based Effluent Pipe
-  Shore Based Intake Pipe
-  Diameter (100 cm) of Storm Sewer Outfall
-  Diameter (100 cm) of Combined Sewer Overflow Outfall
-  Diameter (100 cm) of Sanitary Sewer Outfall
-  Diameter (100 cm) of Emergency Overflow Outfall
-  Shore based Emergency Overflow
-  Abandoned

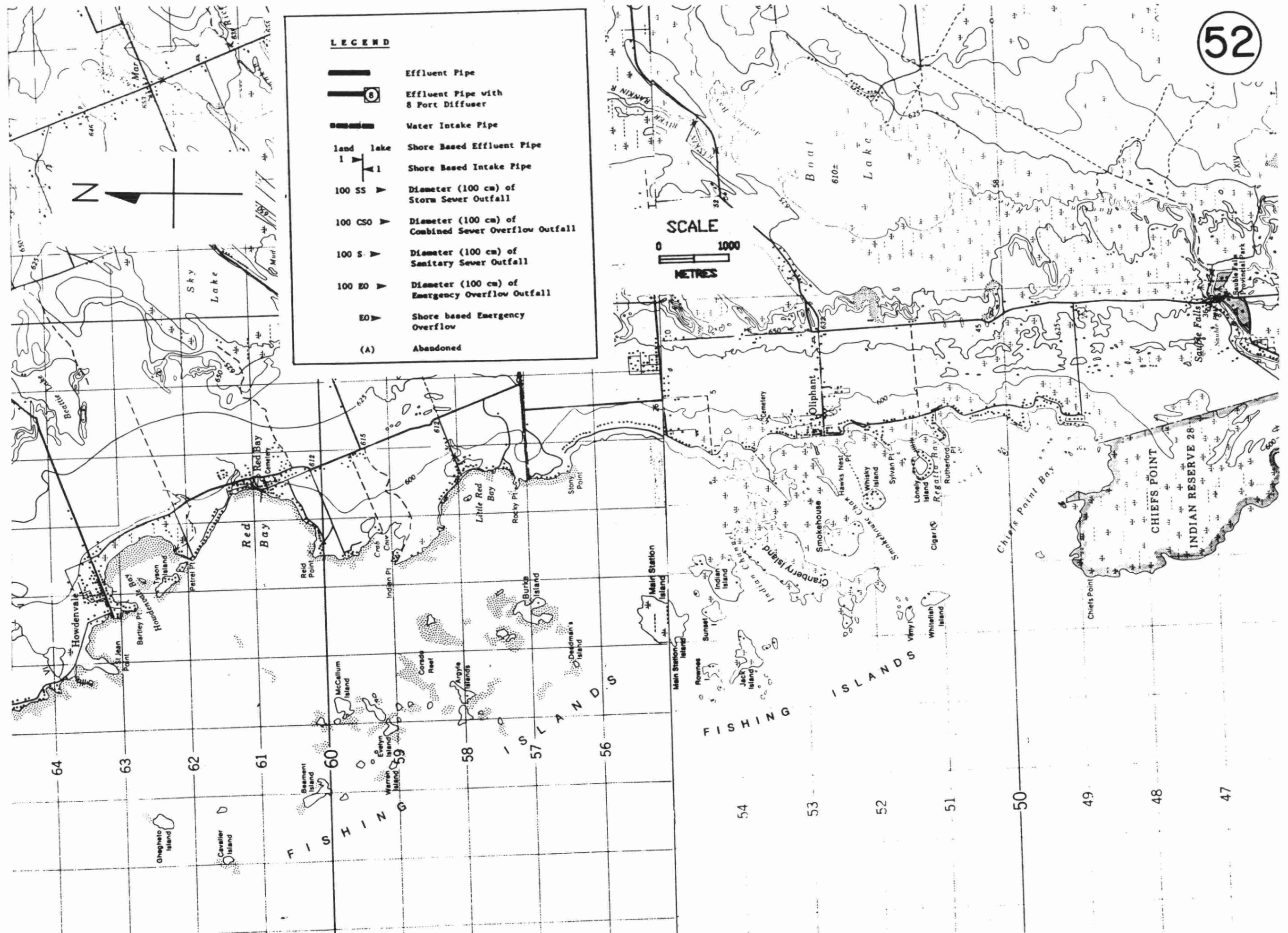


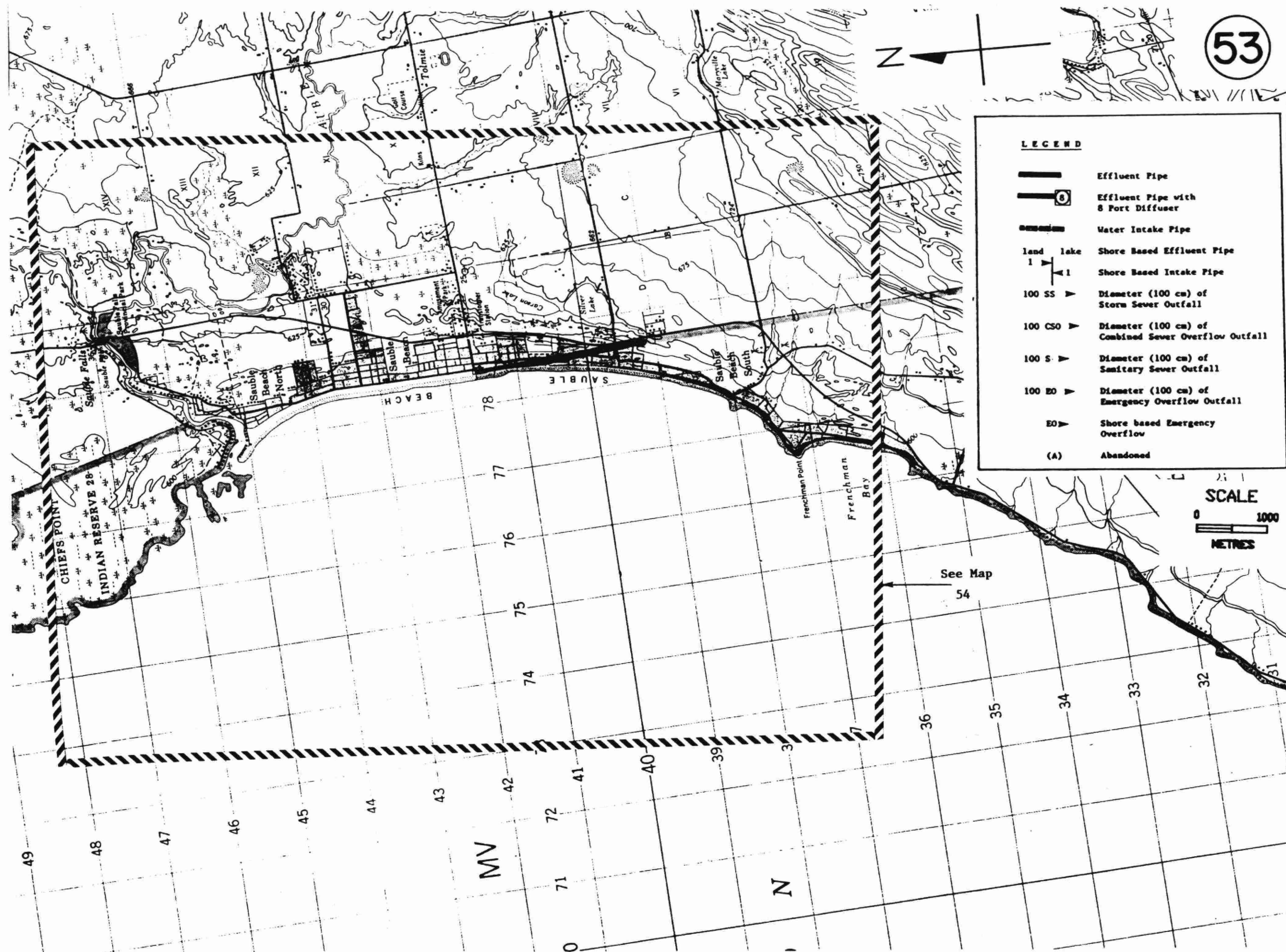


LEGEND

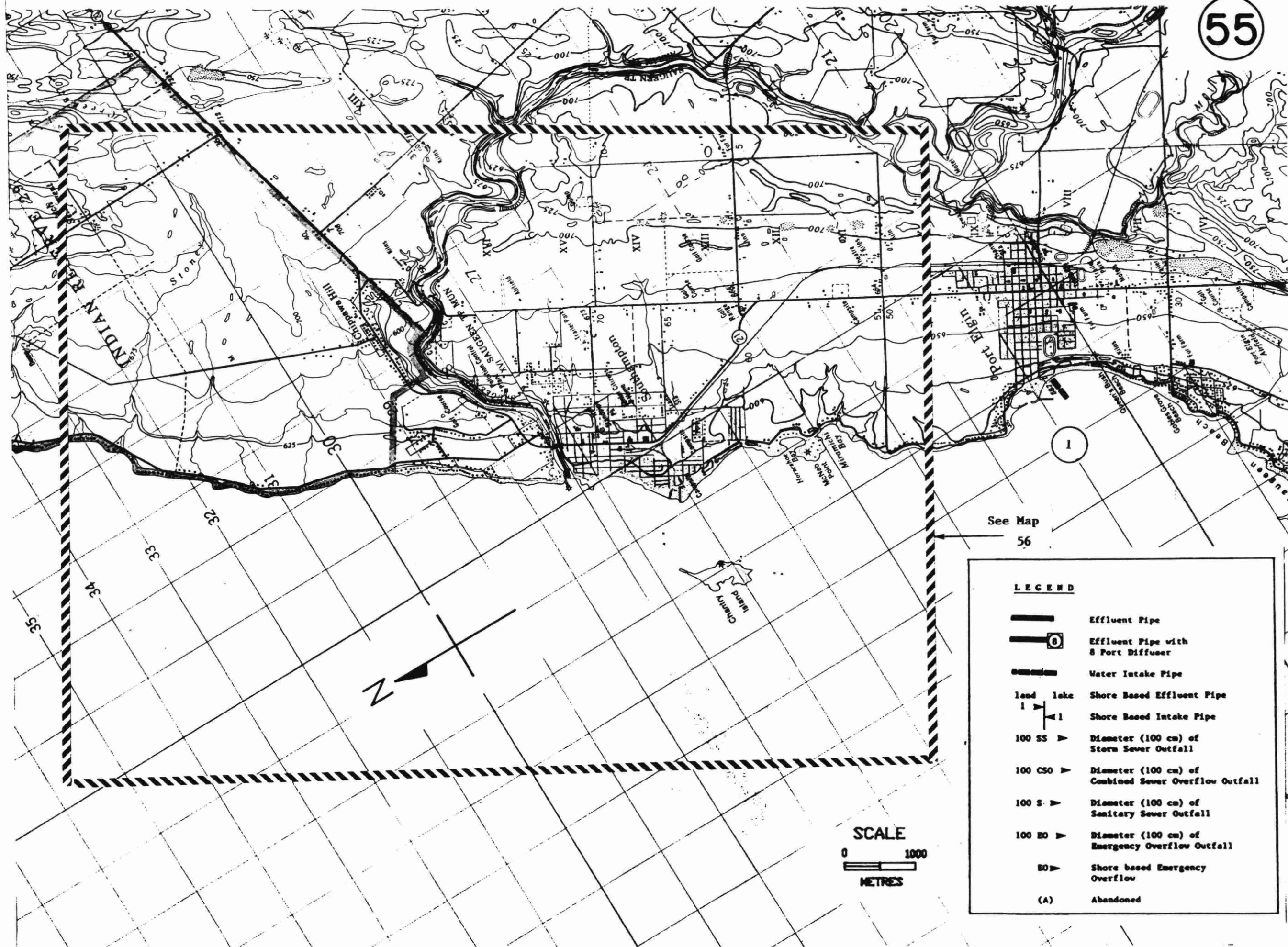
-  Effluent Pipe
-  Effluent Pipe with 8 Port Diffuser
-  Water Intake Pipe
-  Shore Based Effluent Pipe
-  Shore Based Intake Pipe
-  Diameter (100 cm) of Storm Sewer Outfall
-  Diameter (100 cm) of Combined Sewer Overflow Outfall
-  Diameter (100 cm) of Sanitary Sewer Outfall
-  Diameter (100 cm) of Emergency Overflow Outfall
-  Shore based Emergency Overflow
-  Abandoned

SCALE
0 1000
METRES





Name	Port Elgin WTP					
Intake/Outfall	Intake					
UMIS/IMIS No.	220002707					
Structure No.	1					
Map Number	55					
Operating Authority	MUM					
Location	Port Elgin					
Supplier/Receiver	Lake Huron					
Point of Discharge						
Terminal Basin	Lake Huron					
Activity	Municipal Water Treatment					
Process Type	Physical and Chemical Treatment					
Supply/Discharge Type	Continuous					
Treatment Type	Coagulation					
	Filtration					
	Chlorination					
	Fluoridation					
Comments						
Design Flow (1000m3/day)	9.18					
Mean Annual Flow (1000m3/day)	3.20					
Pipe length from shore (m)	300.00					
Pipe Diameter (cm)	50.00					
Water Depth at end of pipe (m)	2.75					
Water depth above end of pipe (m)	NA					
Diffuser						
Number of ports						



See Map
56

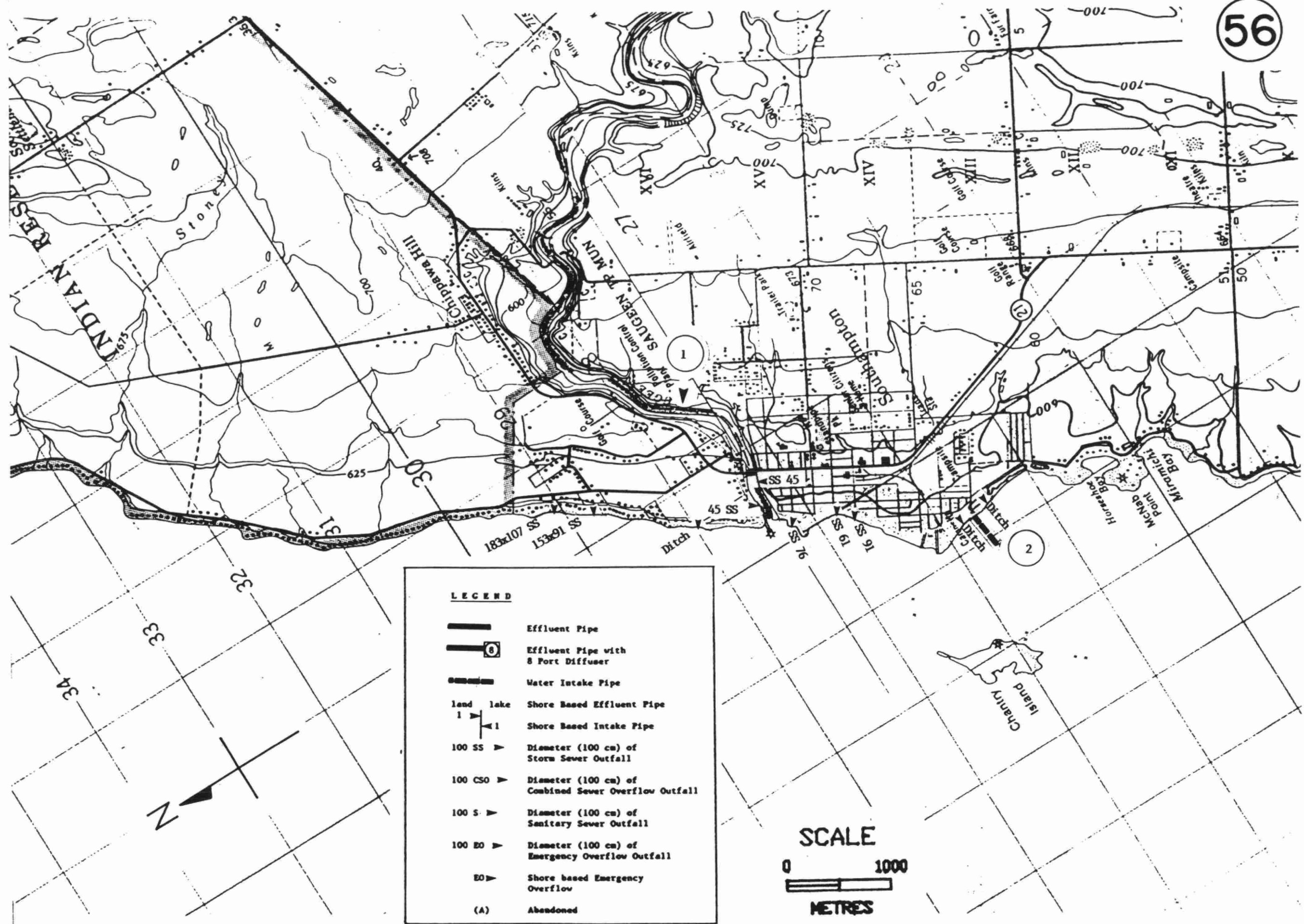
LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- Diameter (100 cm) of Storm Sewer Outfall
- Diameter (100 cm) of Combined Sewer Overflow Outfall
- Diameter (100 cm) of Sanitary Sewer Outfall
- Diameter (100 cm) of Emergency Overflow Outfall
- Shore based Emergency Overflow
- Abandoned

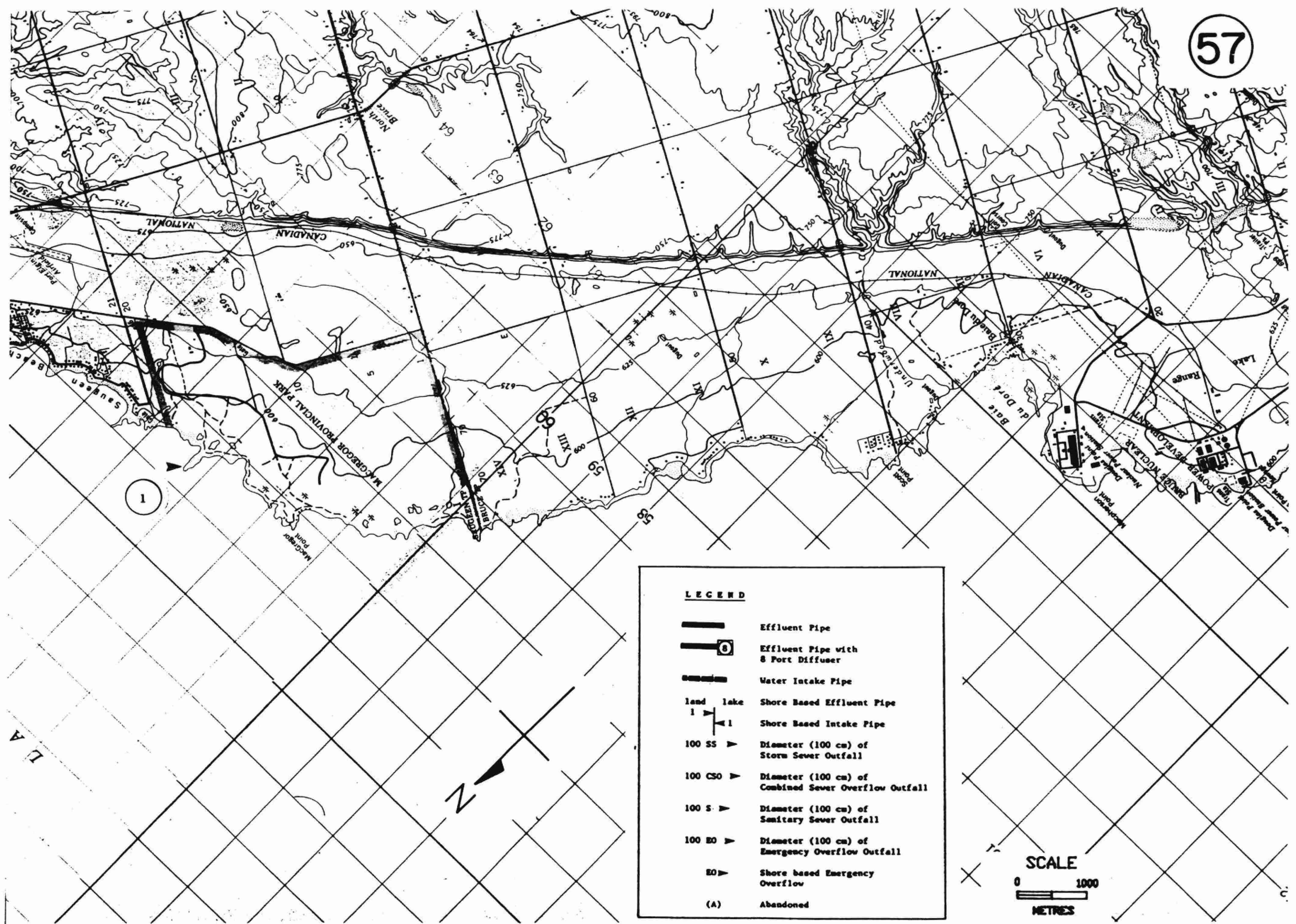
SCALE

0 1000
METRES

Name	Southampton WPCP	Southampton WTP					
Intake/Outfall	Outfall	Intake					
UNIS/INIS No.	110001453	210000078					
Structure No.	1	2					
Map Number	56	56					
Operating Authority	MOE	MOE					
Location	Southampton	Southampton					
Supplier/Receiver	Saugeen River	Lake Huron					
Point of Discharge	River Mouth						
Terminal Basin	Lake Huron	Lake Huron					
Activity	Municipal Sewage Treatment	Municipal Water Treatment					
Process Type	Secondary Treatment	Physical and Chemical Treatment					
Supply/Discharge Type	Continuous	Continuous					
Treatment Type	Oxidation Ditch Clarification Chlorination	Filtration Chlorination					
Comments							
Design Flow (1000m3/day)	3.05	3.82					
Mean Annual Flow (1000m3/day)	1.30	2.24					
Pipe length from shore (m)	0.00	340.00					
Pipe Diameter (cm)	25.40	60.96					
Water Depth at end of pipe (m)	3.04	3.35					
Water depth above end of pipe (m)	3.04	1.82					
Diffuser	NO						
Number of ports							

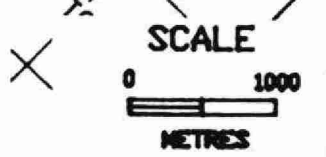


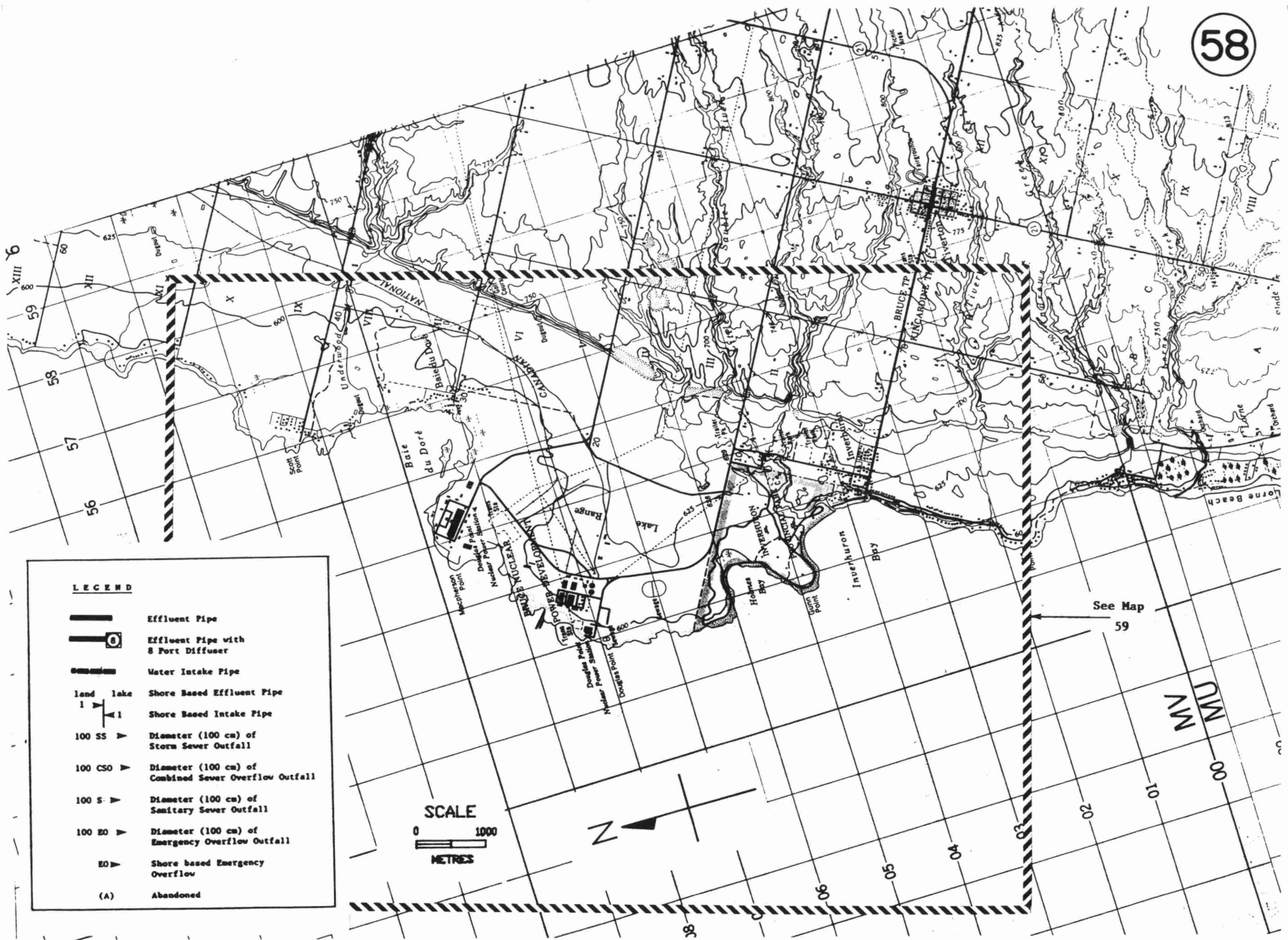
Name	McGregor Point Prov. Park					
Intake/Outfall	Intake					
UMIS/IMIS No.	NA					
Structure No.	1					
Map Number	57					
Operating Authority	MNR					
Location	Port Elgin					
Supplier/Receiver	Lake Huron					
Point of Discharge						
Terminal Basin	Lake Huron					
Activity	Park Water Treatment					
Process Type	Physical and Chemical Treatment					
Supply/Discharge Type	Seasonal					
Treatment Type	Filtration Chlorination					
Comments						
Design Flow (1000m3/day)	0.17					
Mean Annual Flow (1000m3/day)	NA					
Pipe length from shore (m)	128.44					
Pipe Diameter (cm)	15.00					
Water Depth at end of pipe (m)	5.27					
Water depth above end of pipe (m)	2.74					
Diffuser						
Number of ports						



LEGEND

	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
	Diameter (100 cm) of Storm Sever Outfall
	Diameter (100 cm) of Combined Sever Overflow Outfall
	Diameter (100 cm) of Sanitary Sever Outfall
	Diameter (100 cm) of Emergency Overflow Outfall
	Shore based Emergency Overflow
	Abandoned

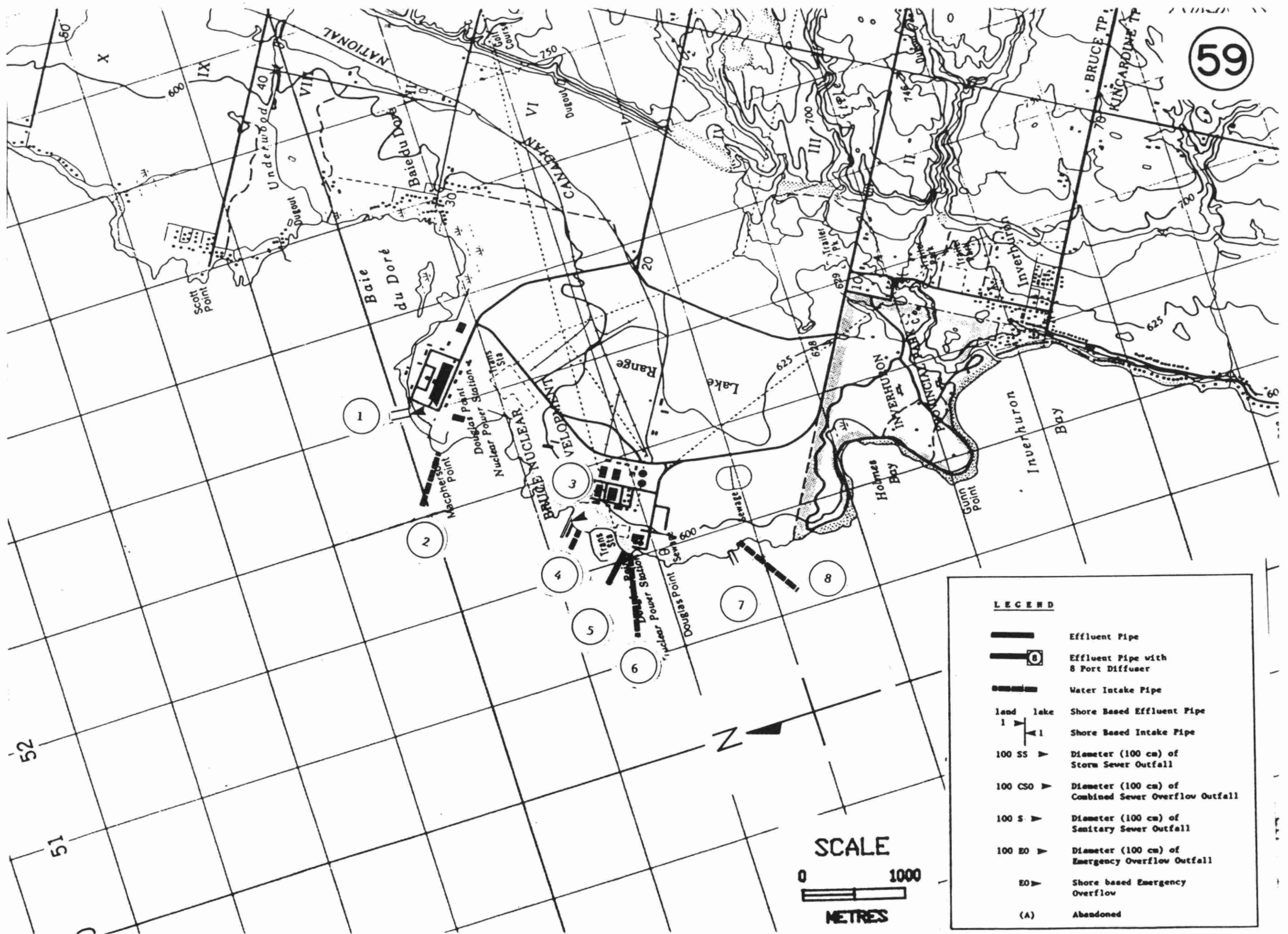




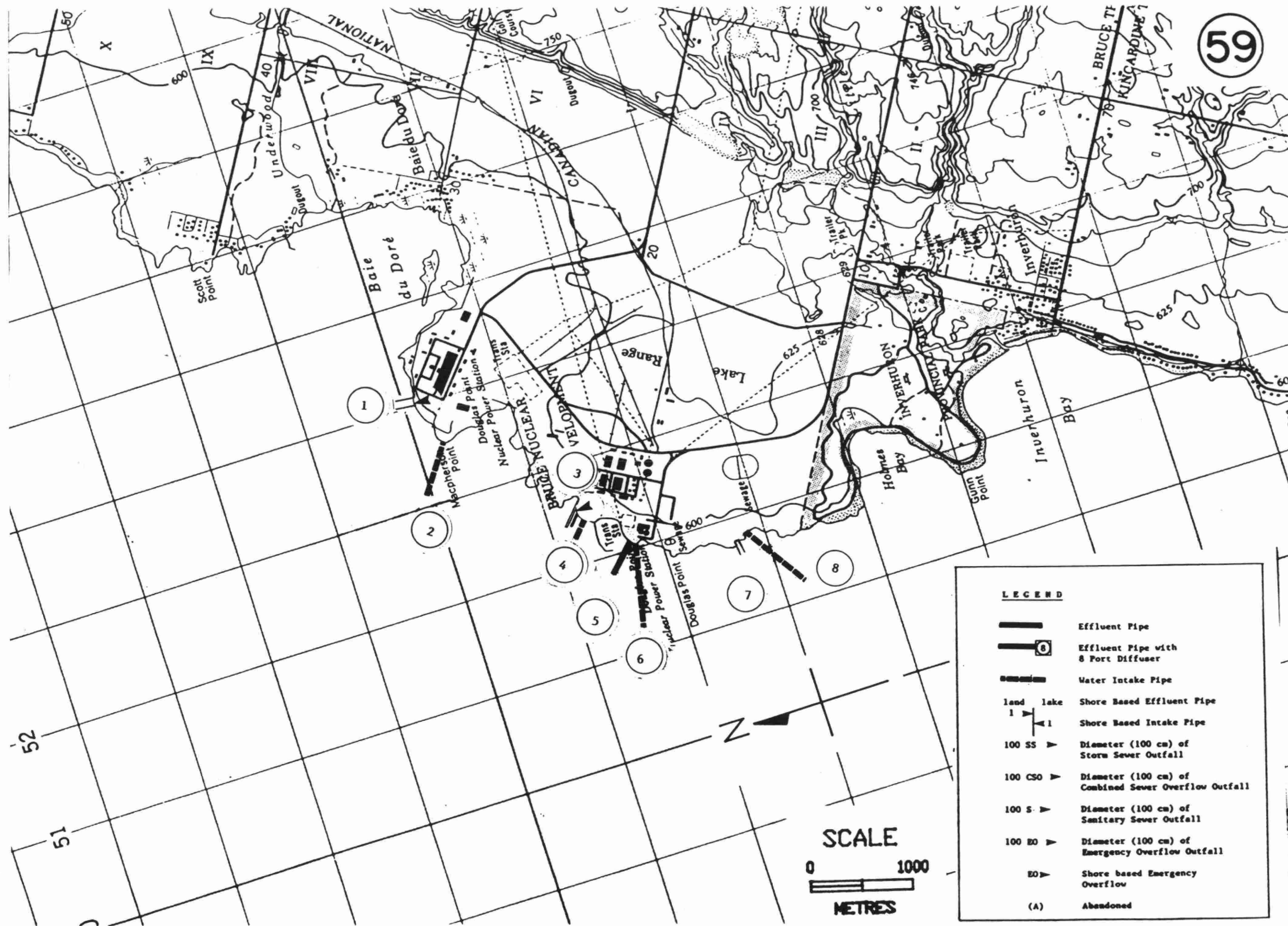
LEGEND

	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS >	Diameter (100 cm) of Storm Sewer Outfall
100 CSO >	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S >	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO >	Diameter (100 cm) of Emergency Overflow Outfall
EO >	Shore based Emergency Overflow
(A)	Abandoned

Name	Bruce A WGS	Bruce A WGS	Douglas Point WGS	Douglas Point WGS	Bruce Heavy Water Plant	Bruce Heavy Water Plant	Bruce B WGS
Intake/Outfall	Outfall	Intake	Outfall	Intake	Outfall	Intake	Outfall
UMIS/IMIS No.	0001840107	0001840107	0001840107	0001840107	0001840107	0001840107	0001840107
Structure No.	1	2	3	4	5	6	7
Map Number	59	59	59	59	59	59	59
Operating Authority	Ontario Hydro	Ontario Hydro	Ontario Hydro	Ontario Hydro	Ontario Hydro	Ontario Hydro	Ontario Hydro
Location	Bruce TWP	Bruce TWP	Bruce TWP	Bruce TWP	Bruce TWP	Bruce TWP	Bruce TWP
Supplier/Receiver	Lake Huron	Lake Huron	Lake Huron	Lake Huron	Lake Huron	Lake Huron	Lake Huron
Point of Discharge	Offshore		Shore		Offshore		Offshore
Terminal Basin	Lake Huron	Lake Huron		Lake Huron	Lake Huron	Lake Huron	Lake Huron
Activity	Nuclear Generating Station	Nuclear Generating Station	Nuclear Generating Station	Nuclear Generating Station	Heavy Water Production Facility	Heavy Water Production Facility	Nuclear Generating Station
Process Type	Four CANDU Nuclear Reactors	Four CANDU Nuclear Reactors	One CANDU Nuclear Reactor	One CANDU Nuclear Reactor	Hydrogen Sulphide and steam are used to remove H ₂ O from lake water	Hydrogen Sulphide and steam are used to remove H ₂ O from lake water	Four CANDU Nuclear Reactors
Supply/Discharge Type	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Treatment Type	Filtration by Bar Racks and Screens	Bar Racks & Vertical Travelling Screens	Bar Racks and Screens	Bar Racks & Vertical Travelling Screens	Filtration by Bar Racks & Screens	Bar Racks & Vertical Travelling Screens	Filtration by Bar Racks and Screens
Comments			Outfall also used for Bruce heavy water plant Douglas Pt. Shutdown 1984 Heavy Water Mouthballed	Intake also used for Bruce heavy water plant Douglas Pt. Shutdown 1984 Heavy Water Mouthballed			
Design Flow (1000m ³ /day)	15405.00	15405.00	2048.00	2048.00	5455.00	5455.00	19181.00
Mean Annual Flow (1000m ³ /day)	12324.00	12324.00	0.00	0.00	1728.00	1728.00	15345.00
Pipe length from shore (m)	132.00	549.00	0.00	226.00	330.00	800.00	132.00
Pipe Diameter (cm)	3000.00	732.00	700.00	442.00	2000.00	640.00	3000.00
Water Depth at end of pipe (m)	5.00	19.80	0.00	3.50	NA	15.80	5.00
Water depth above end of pipe (m)	0.00	10.50	NA	2.90	2.50	12.80	0.00
Diffuser	NO		NO		NO		NO
Number of ports							



Name	Bruce B MGS						
Intake/Outfall	Intake						
DMIS/IMIS No.	0001840107						
Structure No.	8						
Map Number	59						
Operating Authority	Ontario Hydro						
Location	Bruce TWP						
Supplier/Receiver	Lake Huron						
Point of Discharge							
Terminal Basin	Lake Huron						
Activity	Nuclear Generating Station						
Process Type	Four CANDU Nuclear Reactors						
Supply/Discharge Type	Continuous						
Treatment Type	Bar Racks & Vertical Travelling Screens						
Comments							
Design Flow (1000m3/day)	19181.00						
Mean Annual Flow (1000m3/day)	15345.00						
Pipe length from shore (m)	767.00						
Pipe Diameter (cm)	975.00						
Water Depth at end of pipe (m)	25.00						
Water depth above end of pipe (m)	12.20						
Diffuser							
Number of ports							



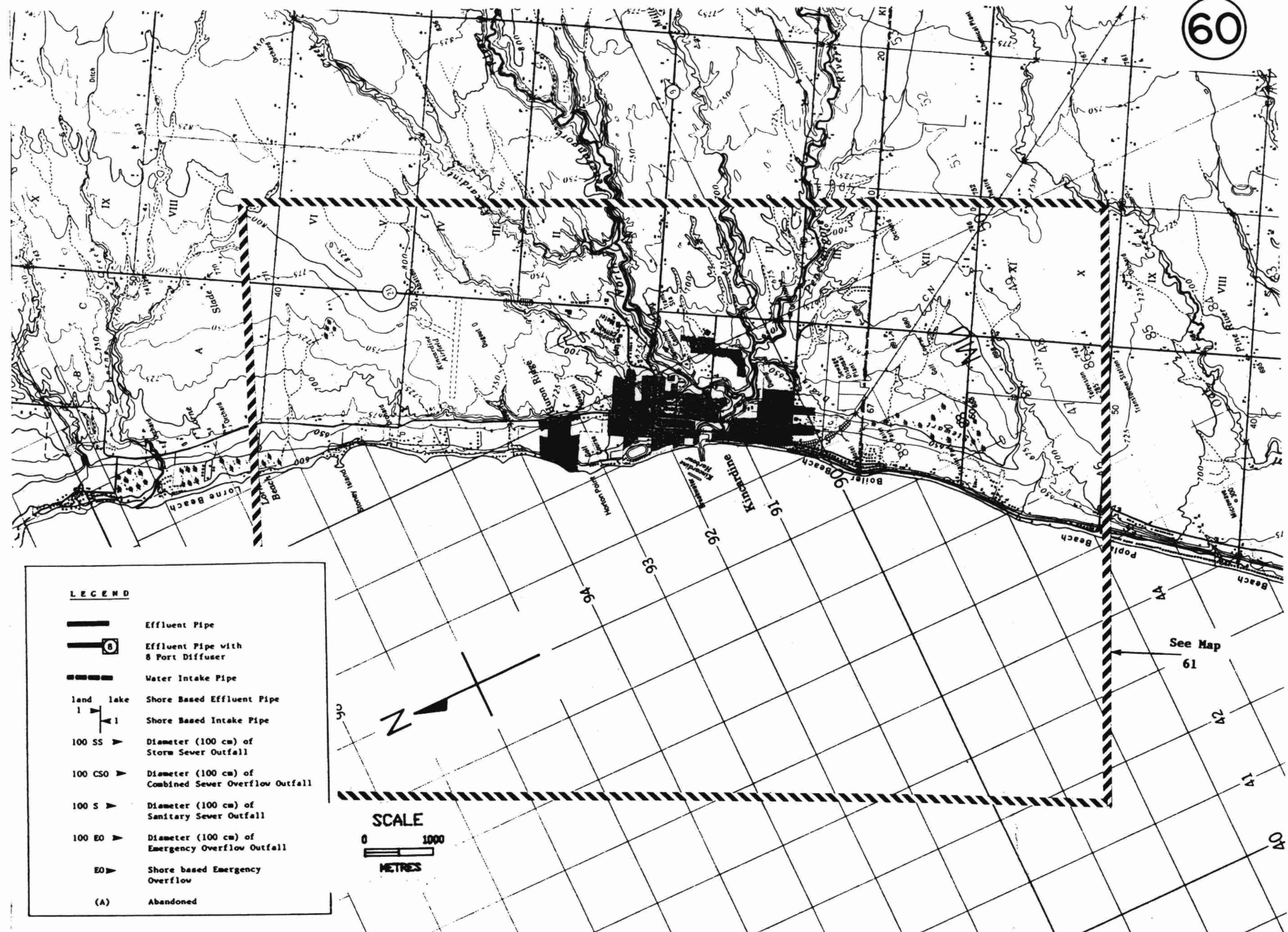
LEGEND

	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
	Diameter (100 cm) of Storm Sewer Outfall
	Diameter (100 cm) of Combined Sewer Overflow Outfall
	Diameter (100 cm) of Sanitary Sewer Outfall
	Diameter (100 cm) of Emergency Overflow Outfall
	Shore based Emergency Overflow
	Abandoned

SCALE

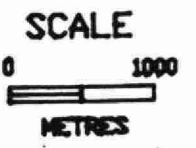
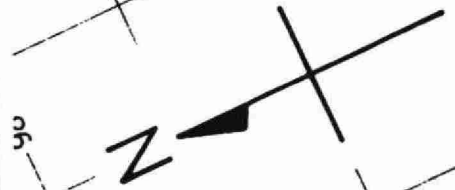
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METRES



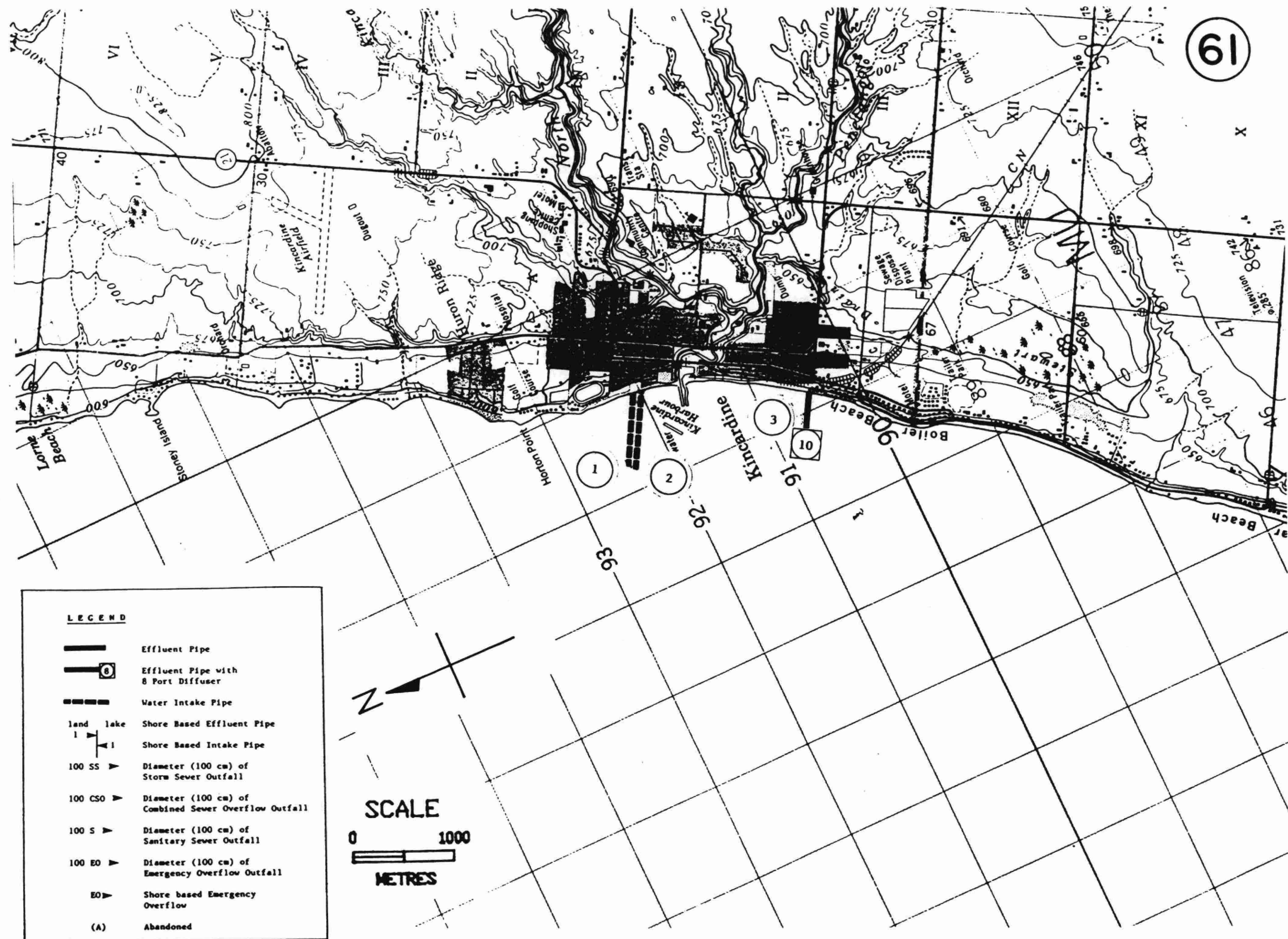
LEGEND

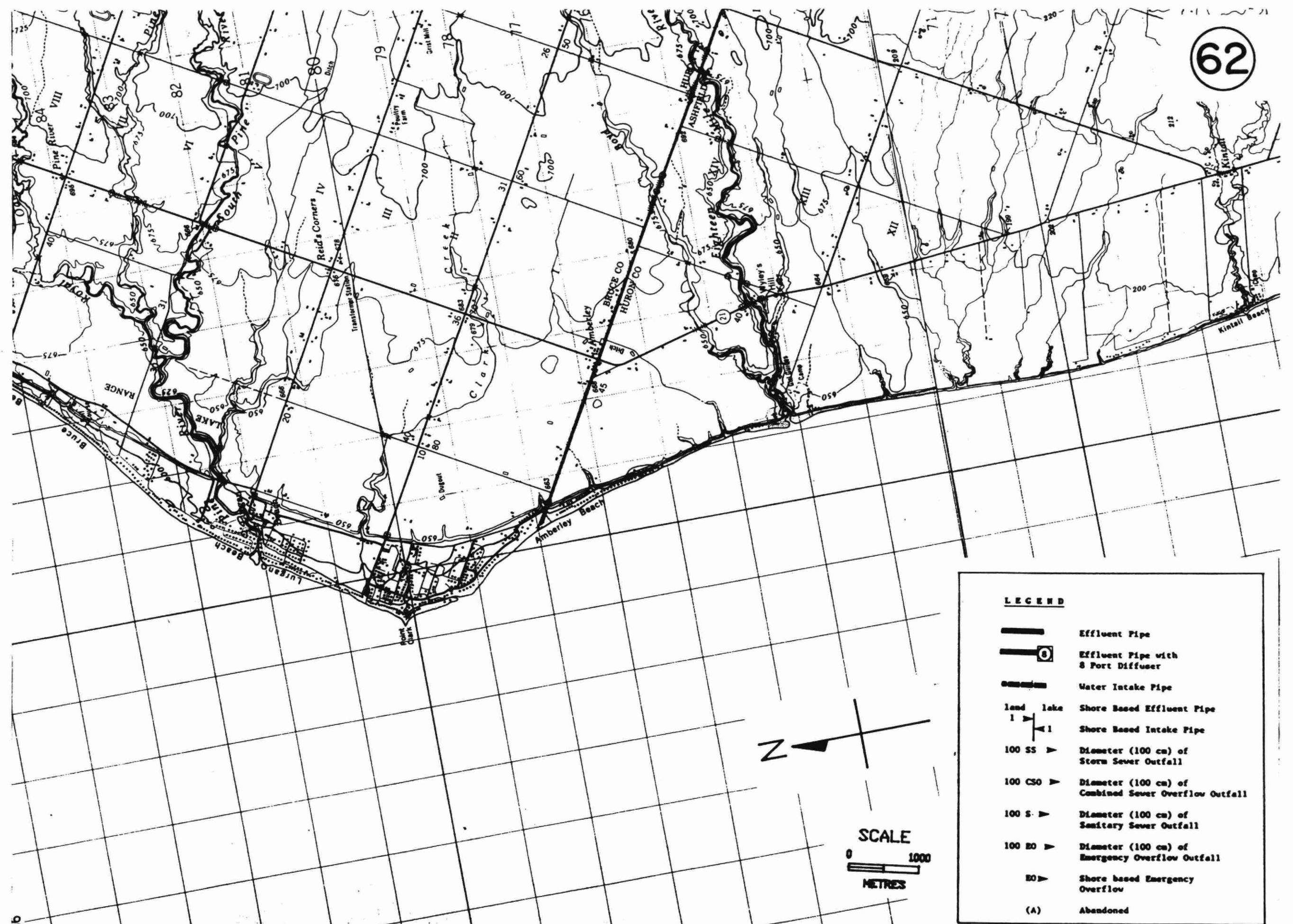
	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS >	Diameter (100 cm) of Storm Sewer Outfall
100 CSO >	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S >	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO >	Diameter (100 cm) of Emergency Overflow Outfall
EO >	Shore based Emergency Overflow
(A)	Abandoned



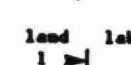
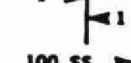
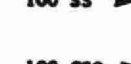
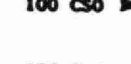
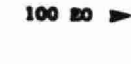
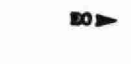
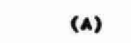
See Map 61

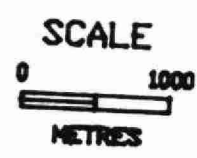
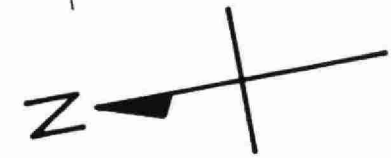
Name	Kincardine WTP	Kincardine WTP	Kincardine WPCP				
Intake/Outfall	Intake	Intake	Outfall				
UNIS/INIS No.	220002716	220002716	110000864				
Structure No.	1	2	3				
Map Number	61	61	61				
Operating Authority	MUN POC	MUN POC	MOR				
Location	Kincardine	Kincardine	Kincardine				
Supplier/Receiver	Lake Huron	Lake Huron	Lake Huron				
Point of Discharge			Offshore				
Terminal Basin	Lake Huron	Lake Huron	Lake Huron				
Activity	Municipal Water Treatment	Municipal Water Treatment	Municipal Sewage Treatment				
Process Type	Physical and Chemical Treatment	Physical and Chemical Treatment	Secondary Treatment				
Supply/Discharge Type	Continuous	Continuous	Continuous				
Treatment Type	Mixed Media Filtration Chlorination	Mixed Media Filtration Chlorination	Aerated Lagoon plus Lagoon				
Comments							
Design Flow (1000m3/day)	NA	36.32	5.91				
Mean Annual Flow (1000m3/day)	NA	9.91	2.34				
Pipe length from shore (m)	746.00	760.00	338.32				
Pipe Diameter (cm)	40.64	50.80	40.64				
Water Depth at end of pipe (m)	9.14	9.14	4.88				
Water depth above end of pipe (m)	NA	NA	4.88				
Diffuser			YES				
Number of ports			10				

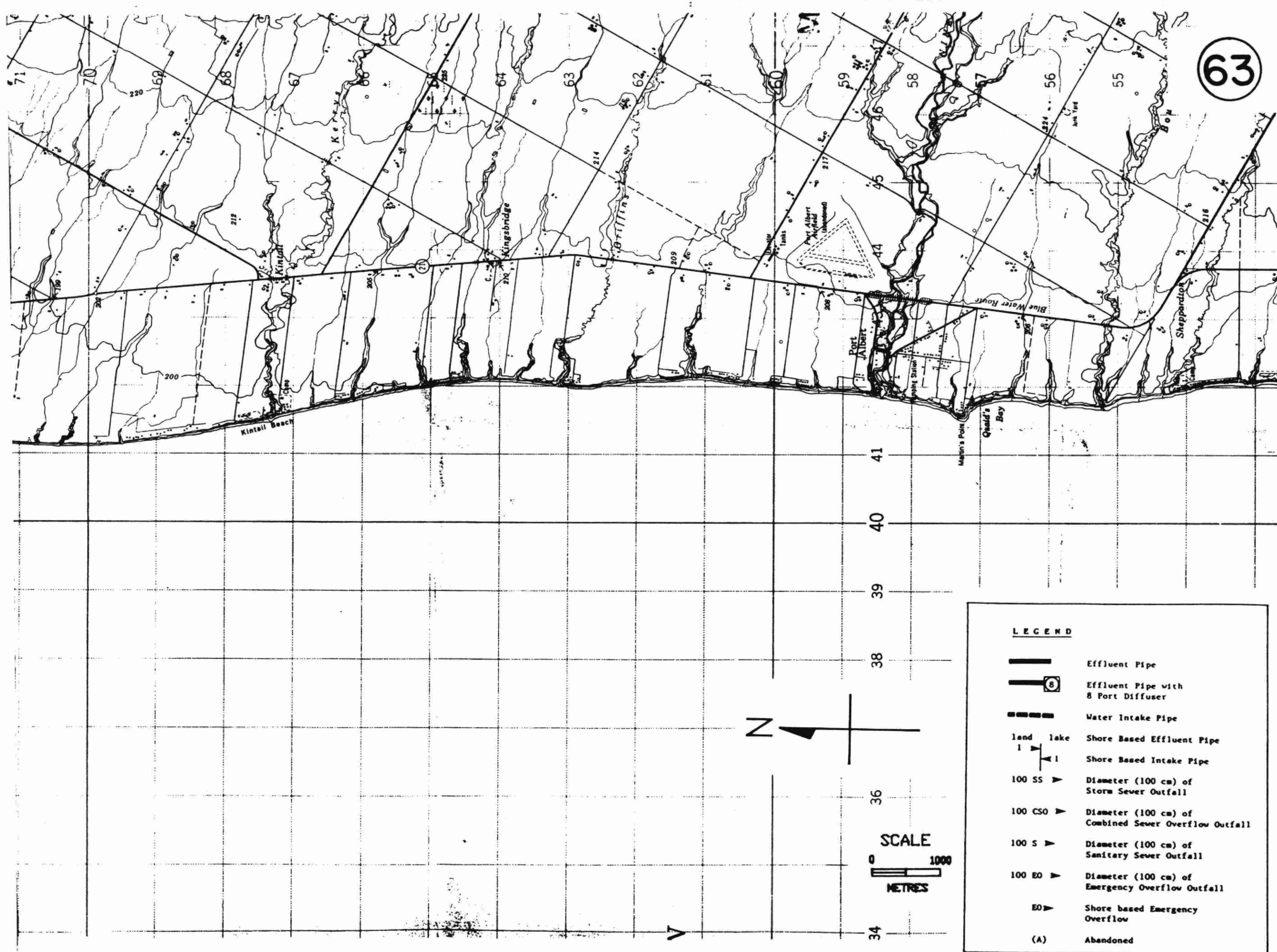




LEGEND

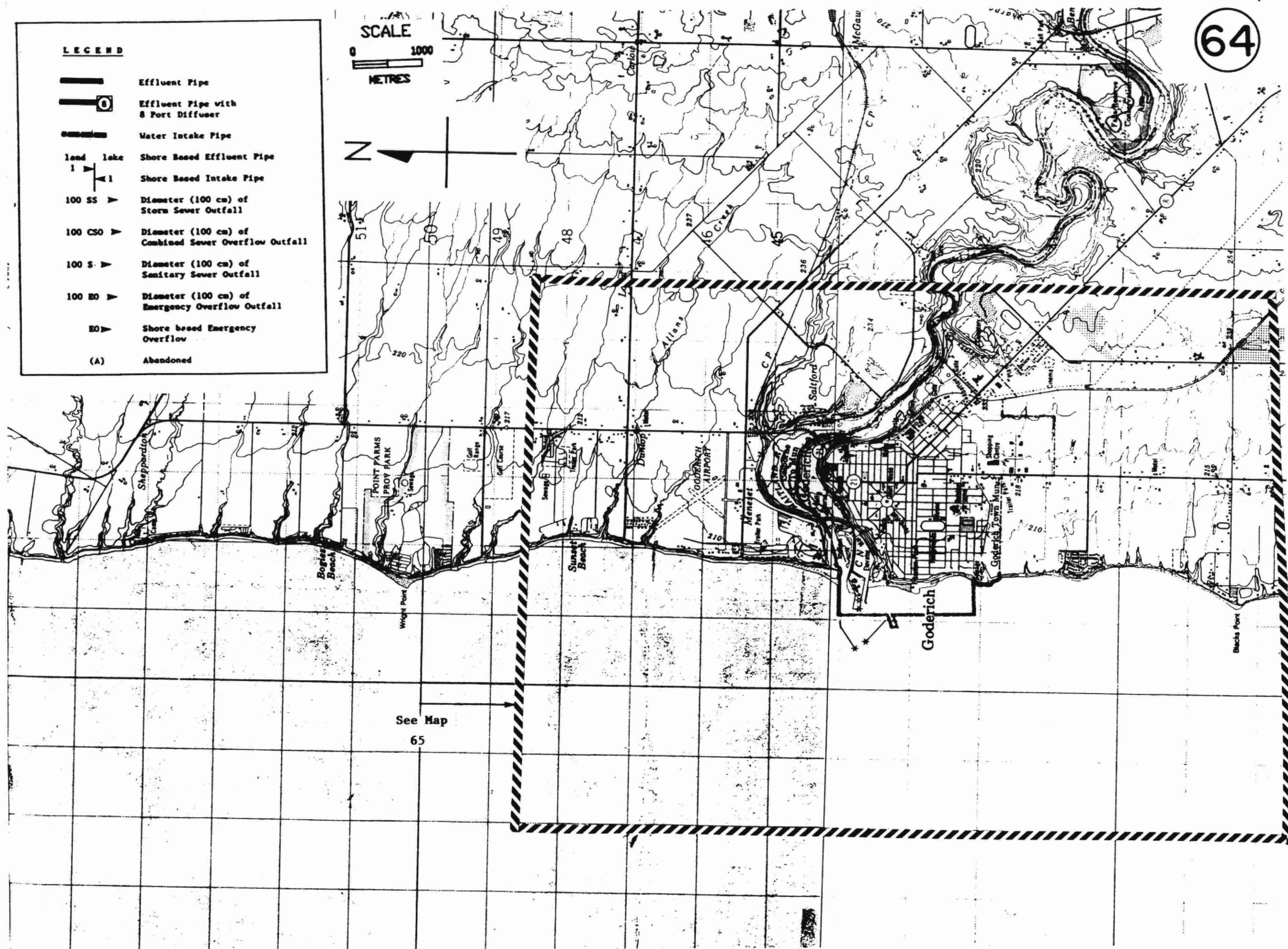
-  Effluent Pipe
-  Effluent Pipe with 8 Port Diffuser
-  Water Intake Pipe
-  Shore Based Effluent Pipe
-  Shore Based Intake Pipe
-  Diameter (100 cm) of Storm Sewer Outfall
-  Diameter (100 cm) of Combined Sewer Overflow Outfall
-  Diameter (100 cm) of Sanitary Sewer Outfall
-  Diameter (100 cm) of Emergency Overflow Outfall
-  Shore based Emergency Overflow
-  Abandoned



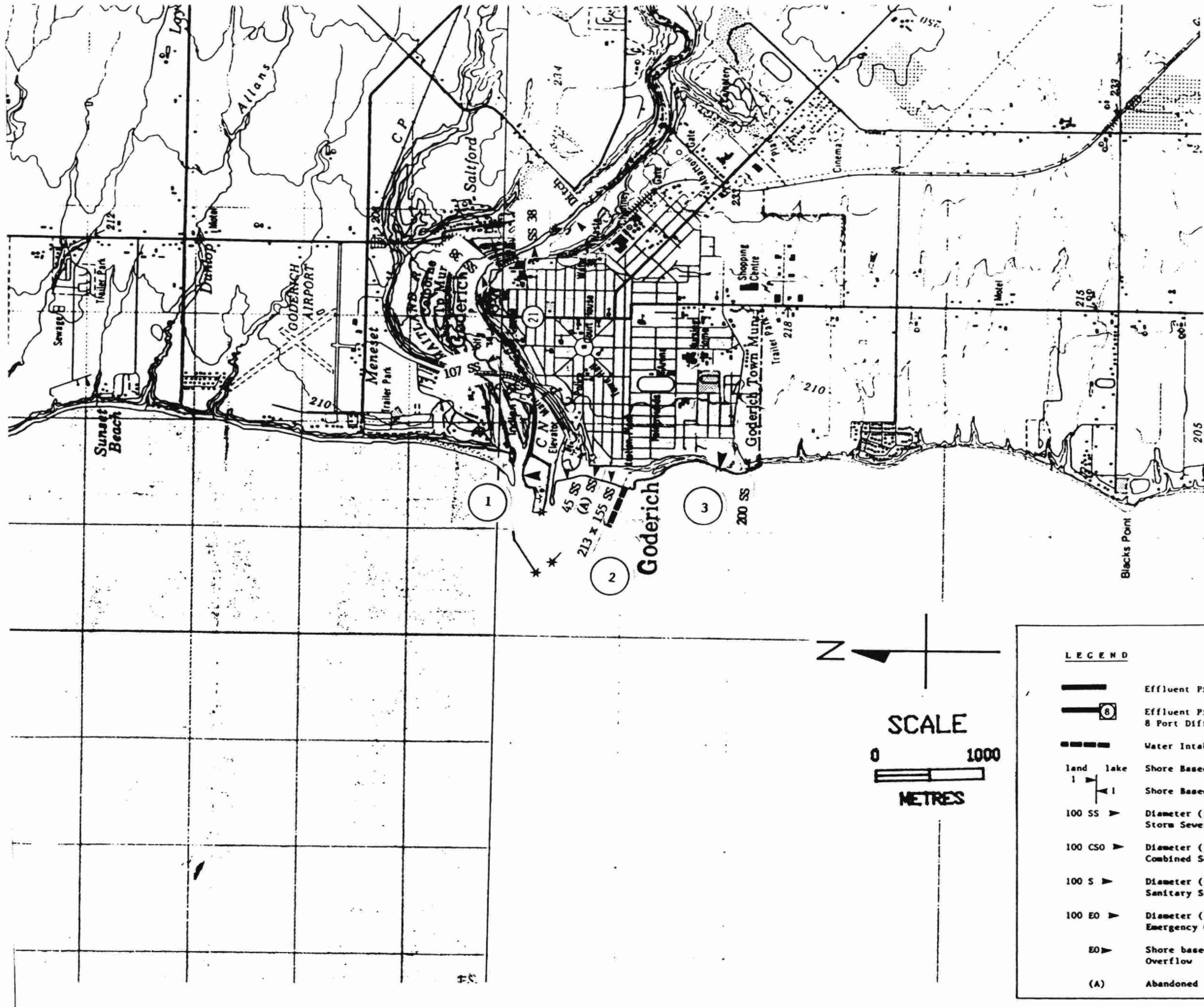


LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS > Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S > Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO > Diameter (100 cm) of Emergency Overflow Outfall
- EO > Shore based Emergency Overflow
- (A) Abandoned



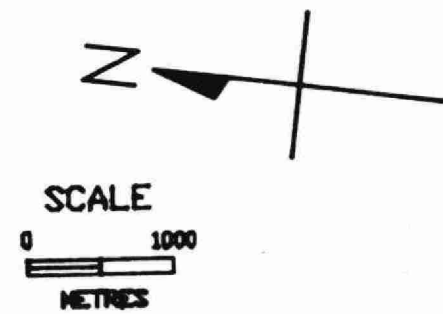
Name	Dontar Inc. Sifto Salt	Goderich WTP	Goderich WPCP				
Intake/Outfall	Outfall	Intake	Outfall				
UMIS/IMIS No.	0000140707	210000238	120000943				
Structure No.	1	2	3				
Map Number	65	65	65				
Operating Authority	IND	MOE	MOH				
Location	Goderich	Goderich	Goderich				
Supplier/Receiver	Maitland River	Lake Huron	Lake Huron				
Point of Discharge	River Mouth		Shore				
Terminal Basin	Lake Huron	Lake Huron	Lake Huron				
Activity	Mining Operation	Municipal Water Treatment	Municipal Sewage Treatment				
Process Type	Underground minning of salt	Physical and Chemical Treatment	Secondary Treatment				
Supply/Discharge Type	Continuous	Continuous	Continuous				
Treatment Type	Small Sewage Treatment Plant, settling Basin	Filtration Chlorination Fluoridation	Conventional Activated Sludge, Sludge Dewatering, Chlorination P Removal-Continuous				
Comments	Storm water not treated.		Spill basin on shore.				
Design Flow (1000m3/day)	NA	12.00	24.50				
Mean Annual Flow (1000m3/day)	0.05	4.44	11.16				
Pipe length from shore (m)	NA	381.00	0.00				
Pipe Diameter (cm)	76.00	106.00	0.00				
Water Depth at end of pipe (m)	NA	6.09	NA				
Water depth above end of pipe (m)	NA	4.87	NA				
Diffuser	NO		NO				
Number of ports							





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LEGEND	
	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
land lake	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS >	Diameter (100 cm) of Storm Sewer Outfall
100 CSO >	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S >	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO >	Diameter (100 cm) of Emergency Overflow Outfall
EO >	Shore based Emergency Overflow
(A)	Abandoned



See Map
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36
37
38
39
40
41
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LEGEND

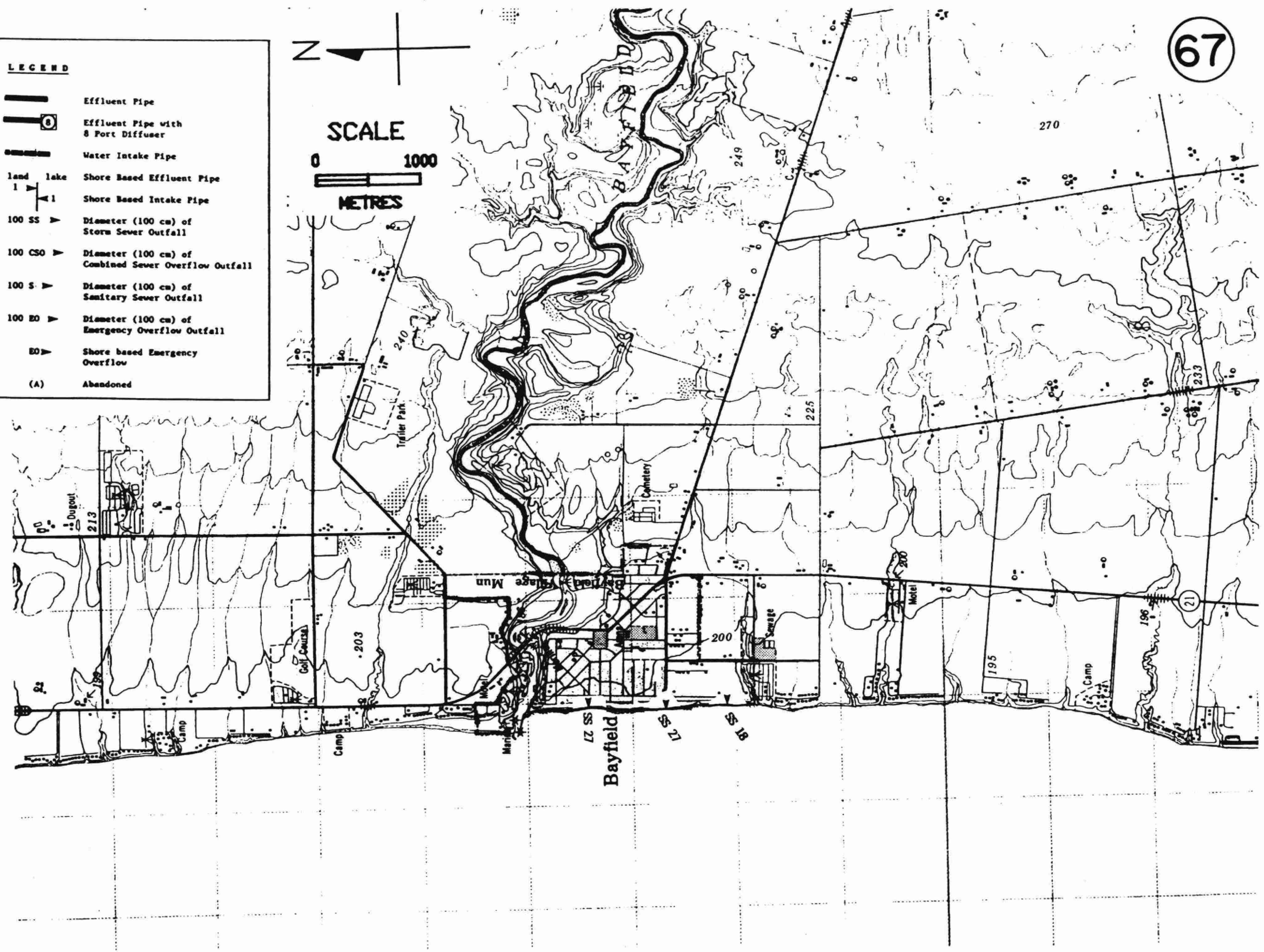
	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS	Diameter (100 cm) of Storm Sewer Outfall
100 CSO	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO	Diameter (100 cm) of Emergency Overflow Outfall
EO	Shore based Emergency Overflow
(A)	Abandoned

SCALE

0 1000

METRES

N





LEGEND

	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
land lake	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS >	Diameter (100 cm) of Storm Sewer Outfall
100 CSO >	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S >	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO >	Diameter (100 cm) of Emergency Overflow Outfall
EO >	Shore based Emergency Overflow
(A)	Abandoned

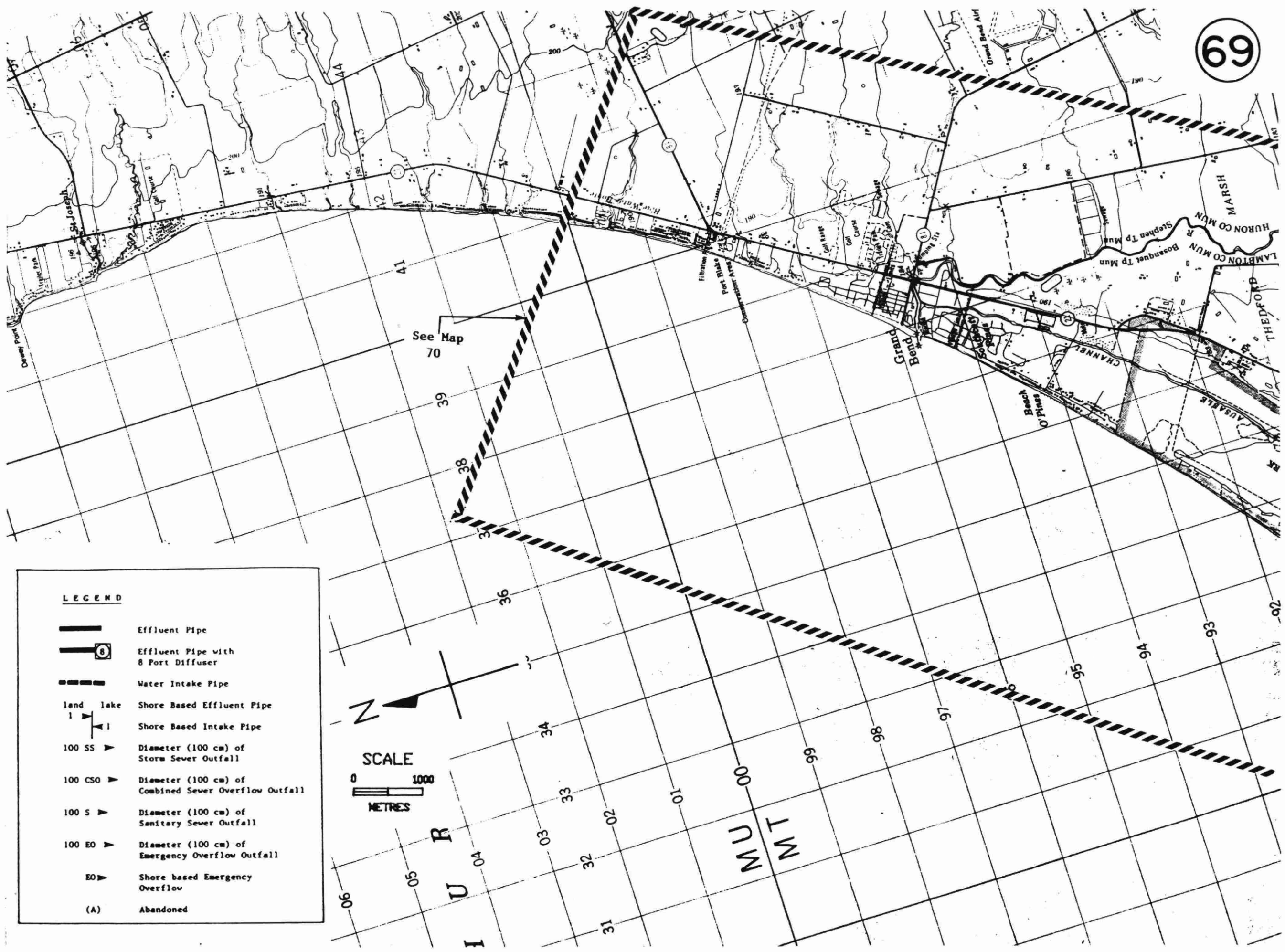
See Map 67

SCALE

0 1000

METRES

N



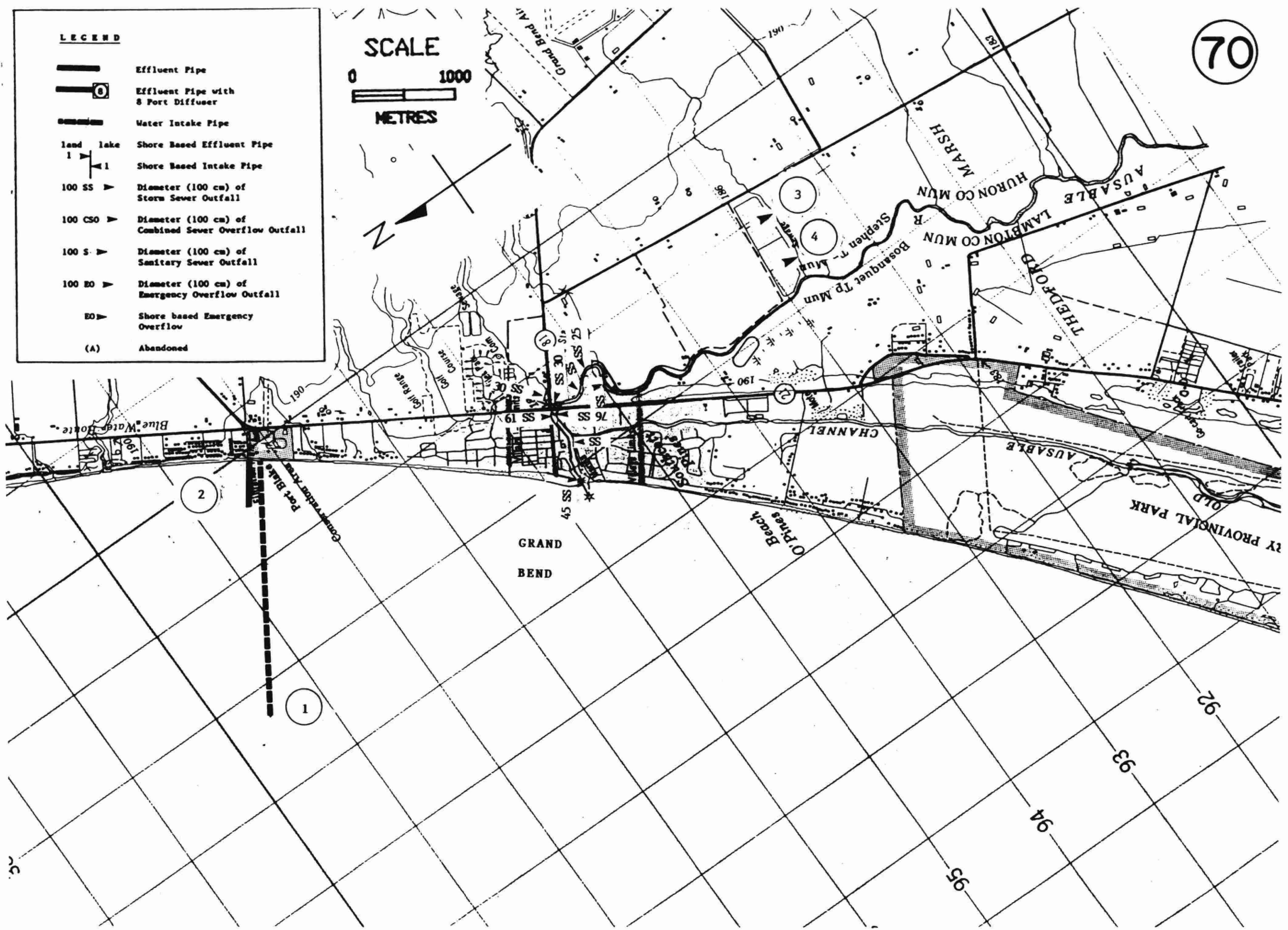
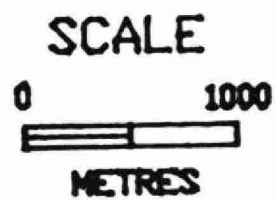
LEGEND

	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS >	Diameter (100 cm) of Storm Sewer Outfall
100 CSO >	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S >	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO >	Diameter (100 cm) of Emergency Overflow Outfall
EO >	Shore based Emergency Overflow
(A)	Abandoned

Name	Lake Huron WSS	Lake Huron WSS	Grand Bend STP	Grand Bend STP			
Intake/Outfall	Intake	Intake	Outfall	Outfall			
UMIS/IMIS No.	210000791	210000791	NA	NA			
Structure No.	1	2	3	4			
Map Number	70	70	70	70			
Operating Authority	MOE	MOE	MOE	MOE			
Location	Grand Bend	Grand Bend	Grand Bend	Grand Bend			
Supplier/Receiver	Lake Huron	Lake Huron	Ausable River	Ausable River			
Point of Discharge			River Mouth	River Mouth			
Terminal Basin	Lake Huron	Lake Huron	Lake Huron	Lake Huron			
Activity	Municipal Water Treatment	Municipal Water Treatment	Municipal Sewage Treatment	Municipal Sewage Treatment			
Process Type	Physical and Chemical Treatment	Physical and Chemical Treatment	Secondary Treatment	Secondary Treatment			
Supply/Discharge Type	Continuous	Continuous	Batch	Batch			
Treatment Type	Filtration Chlorination	Filtration Chlorination	Conventional Lagoon P Removal	Conventional Lagoon P Removal			
Comments							
Design Flow (1000m3/day)	168.20	168.20	1.90	1.90			
Mean Annual Flow (1000m3/day)	153.10	153.10	0.76	0.76			
Pipe length from shore (m)	455.00	2446.00	0.00	0.00			
Pipe Diameter (cm)	106.68	182.88	46.00	46.00			
Water Depth at end of pipe (m)	NA	8.85	0.00	0.00			
Water depth above end of pipe (m)	NA	9.25	0.00	0.00			
Diffuser			NO	NO			
Number of ports							

LEGEND

	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS	Diameter (100 cm) of Storm Sewer Outfall
100 CSO	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO	Diameter (100 cm) of Emergency Overflow Outfall
EO	Shore based Emergency Overflow
(A)	Abandoned



LEGEND

-  Effluent Pipe
-  Effluent Pipe with 8 Port Diffuser
-  Water Intake Pipe
-  Shore Based Effluent Pipe
-  Shore Based Intake Pipe
-  Diameter (100 cm) of Storm Sewer Outfall
-  Diameter (100 cm) of Combined Sewer Overflow Outfall
-  Diameter (100 cm) of Sanitary Sewer Outfall
-  Diameter (100 cm) of Emergency Overflow Outfall
-  Shore based Emergency Overflow
-  Abandoned

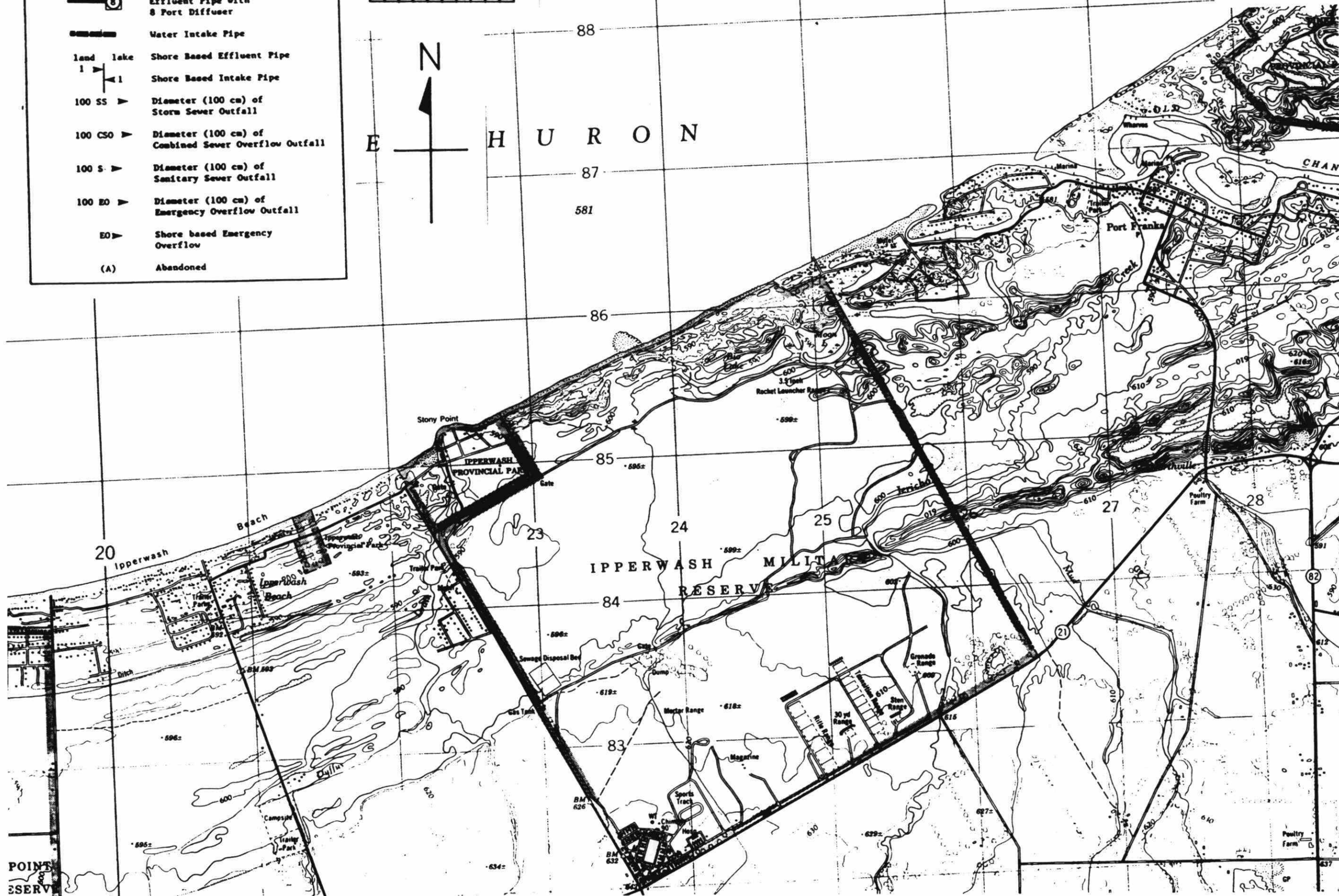
SCALE

0 METRES 500 1000

N

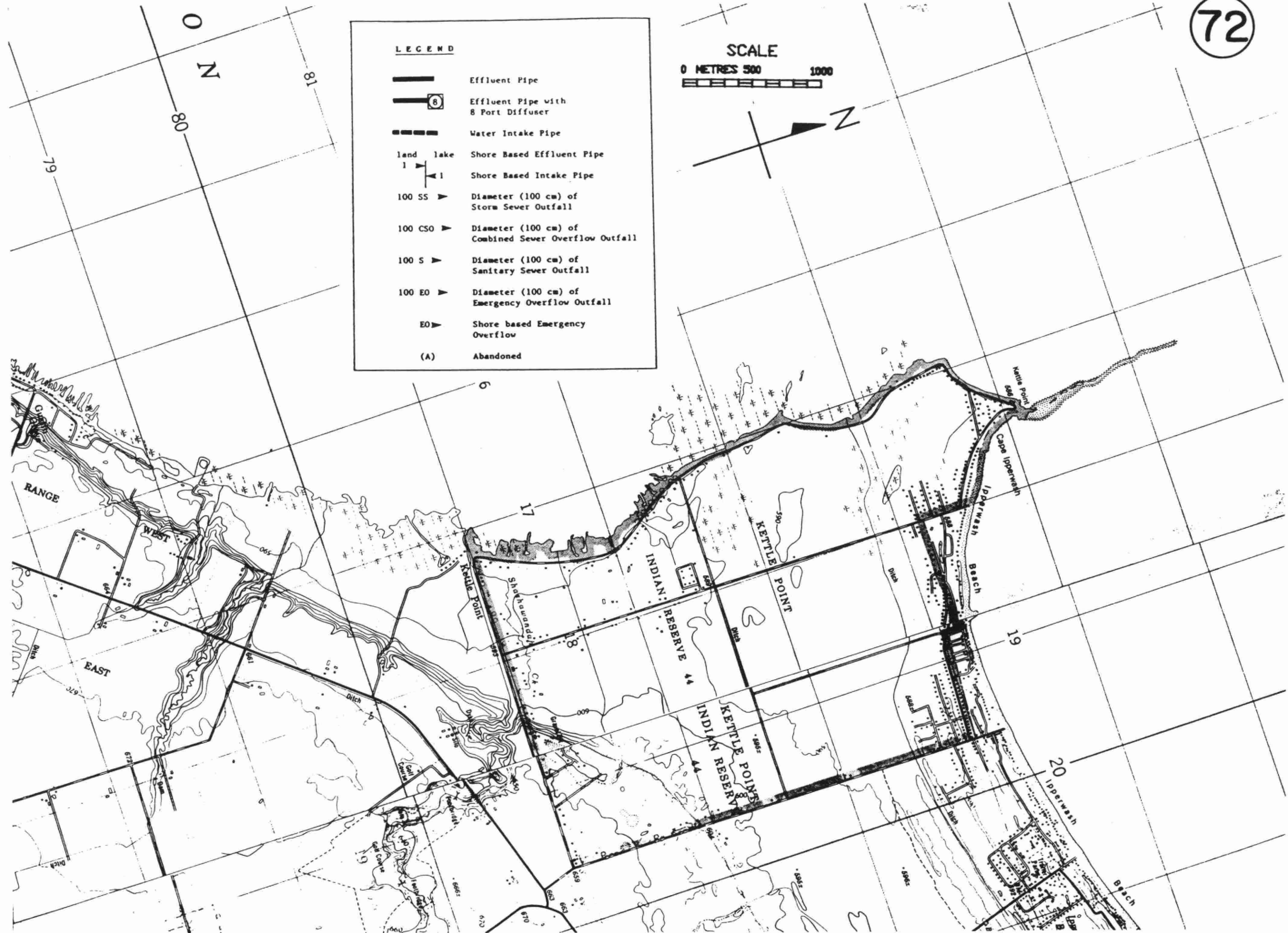
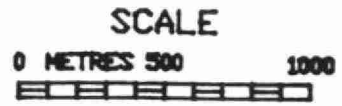
E H U R O N

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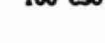
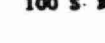
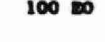


LEGEND

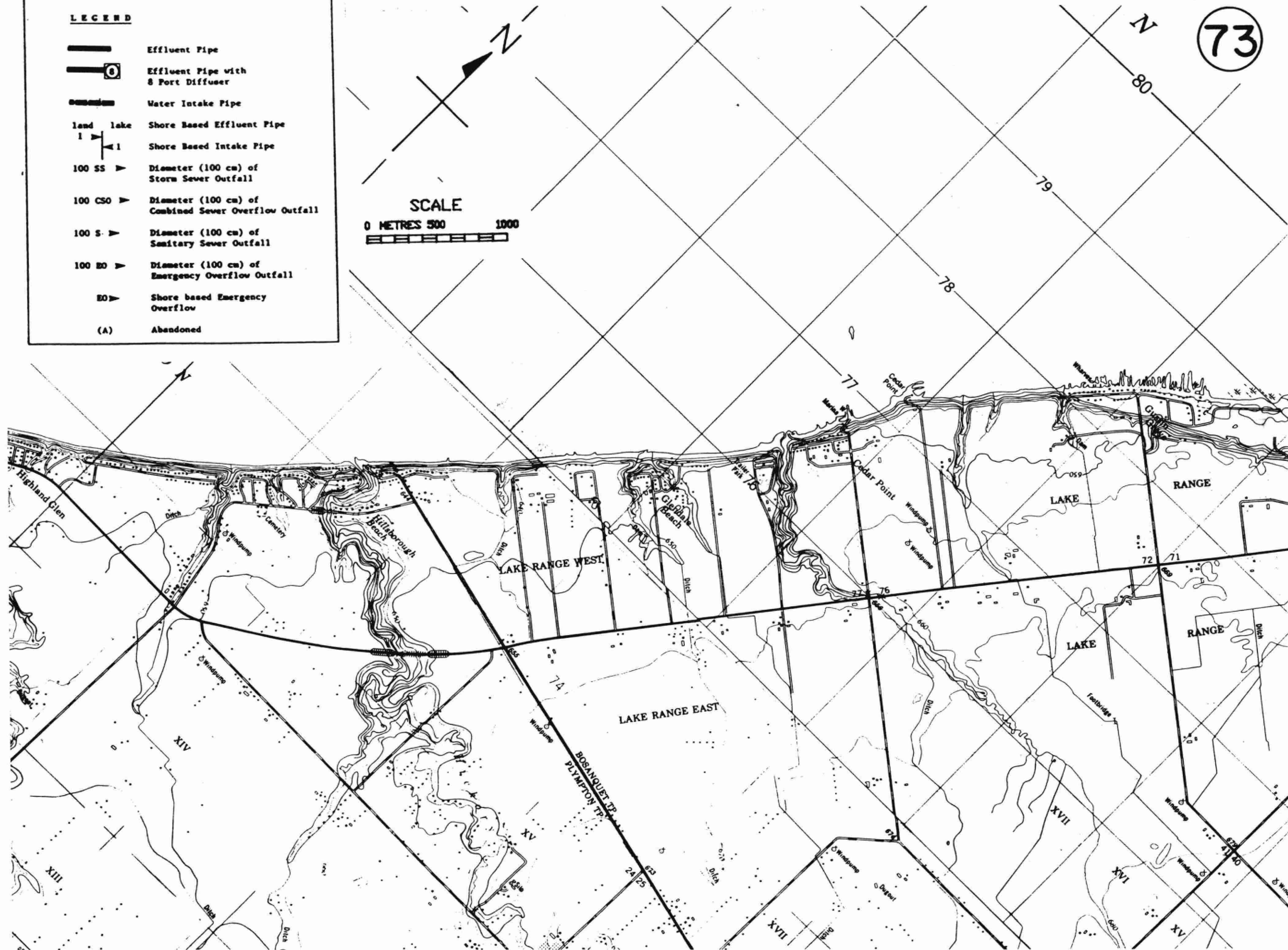
	Effluent Pipe
	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
	Shore Based Effluent Pipe
	Shore Based Intake Pipe
100 SS	Diameter (100 cm) of Storm Sewer Outfall
100 CSO	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO	Diameter (100 cm) of Emergency Overflow Outfall
EO	Shore based Emergency Overflow
(A)	Abandoned

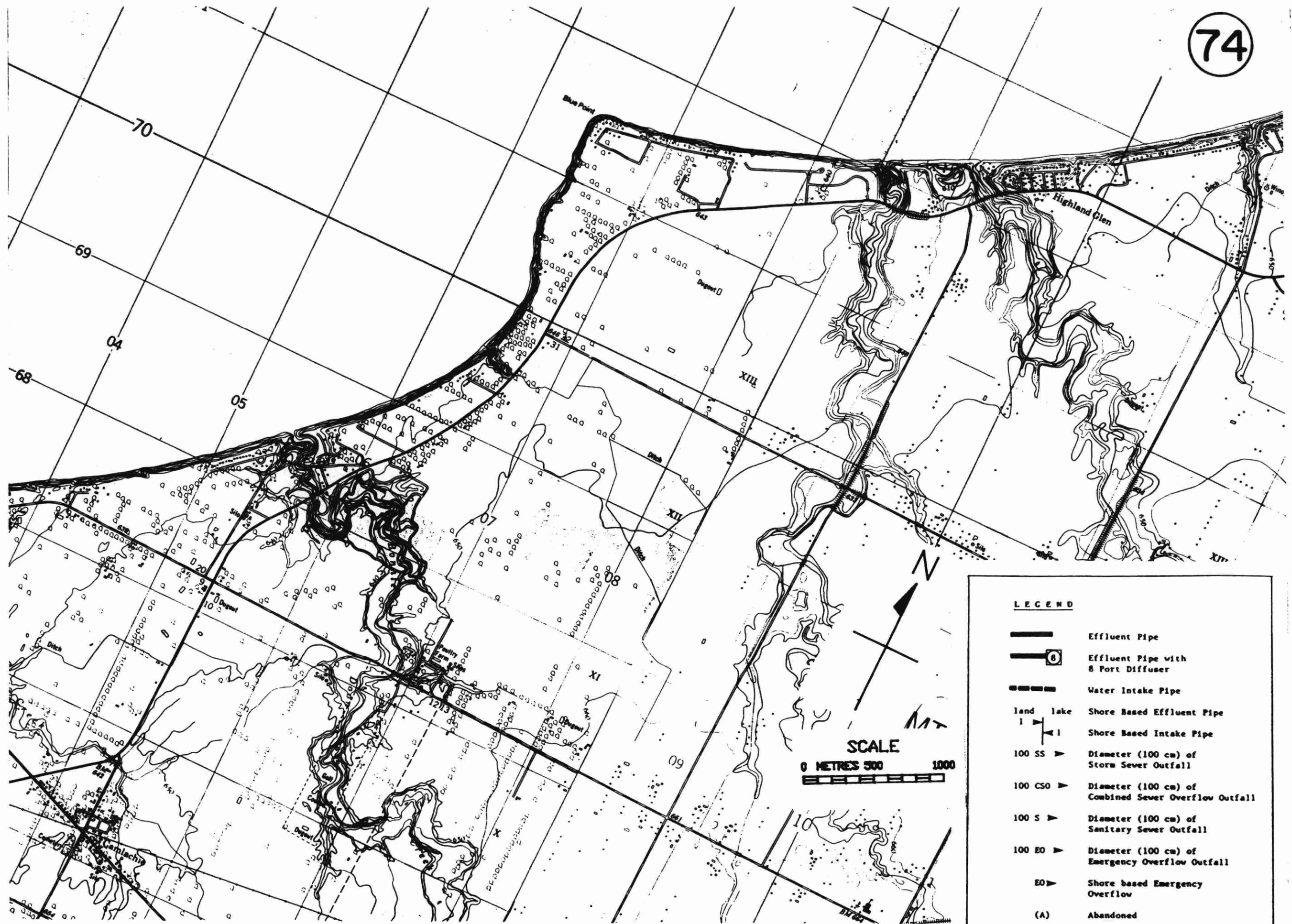


LEGEND

-  Effluent Pipe
-  Effluent Pipe with 8 Port Diffuser
-  Water Intake Pipe
-  Shore Based Effluent Pipe
-  Shore Based Intake Pipe
-  100 SS > Diameter (100 cm) of Storm Sewer Outfall
-  100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
-  100 S > Diameter (100 cm) of Sanitary Sewer Outfall
-  100 EO > Diameter (100 cm) of Emergency Overflow Outfall
-  EO > Shore based Emergency Overflow
-  (A) Abandoned

SCALE
0 METRES 500 1000





Name	Brights Grove STP	Brights Grove STP	Brights Grove STP	Petrolia WTP			
Intake/Outfall	Outfall	Outfall	Outfall	Intake			
UMIS/IMIS No.	110001989	110001989	110001989	220002903			
Structure No.	1	2	3	4			
Map Number	75	75	75	75			
Operating Authority	MOE	MOE	MOE	MUN PUC			
Location	Brights Grove	Brights Grove	Brights Grove	Brights Grove			
Supplier/Receiver	Creek to Lake Huron	Creek to Lake Huron	Creek to Lake Huron	Lake Huron			
Point of Discharge	River Mouth	River Mouth	River Mouth				
Terminal Basin	Lake Huron	Lake Huron	Lake Huron	Lake Huron			
Activity	Municipal Sewage Treatment	Municipal Sewage Treatment	Municipal Sewage Treatment	Municipal Water Treatment			
Process Type	Secondary Treatment	Secondary Treatment	Secondary Treatment	Chemical Treatment			
Supply/Discharge Type	Seasonal	Seasonal	Seasonal	Continuous			
Treatment Type	Conventional Lagoon	Conventional Lagoon	Conventional Lagoon	Chlorination Fluoridation			
Comments				Petrolia PUC Intake located at Brights Grove			
Design Flow (1000m3/day)	1.76	1.76	1.76	7.64			
Mean Annual Flow (1000m3/day)	1.06	1.06	1.06	NA			
Pipe length from shore (m)	0.00	0.00	0.00	NA			
Pipe Diameter (cm)	60.96	53.00	60.96	NA			
Water Depth at end of pipe (m)	NA	NA	NA	NA			
Water depth above end of pipe (m)	NA	NA	NA	NA			
Diffuser	NO	NO	NO				
Number of ports							



LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake
- Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS > Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO > Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S > Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO > Diameter (100 cm) of Emergency Overflow Outfall
- EO > Shore based Emergency Overflow
- (A) Abandoned

SCALE

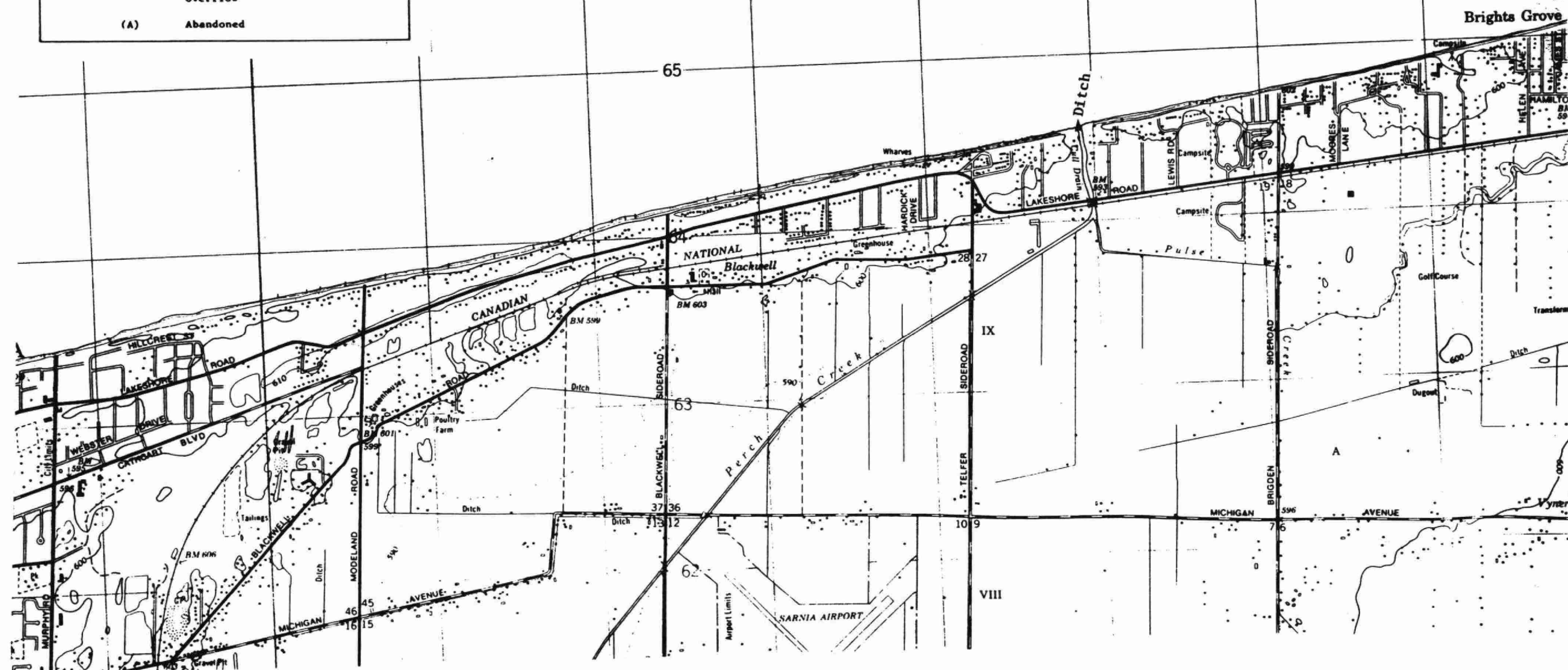
0 METRES 500 1000

LEGEND

-  Effluent Pipe
-  Effluent Pipe with 8 Port Diffuser
-  Water Intake Pipe
-  Shore Based Effluent Pipe
-  Shore Based Intake Pipe
-  Diameter (100 cm) of Storm Sewer Outfall
-  Diameter (100 cm) of Combined Sewer Overflow Outfall
-  Diameter (100 cm) of Sanitary Sewer Outfall
-  Diameter (100 cm) of Emergency Overflow Outfall
-  Shore based Emergency Overflow
-  Abandoned

SCALE
0 METRES 500 1000

76





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